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ESSAYS, MONOGRAPHS, AND CASES

The Manufacture, Impurities, and Tests of Chloroform. By EDWARD R. SQUIBB, M.D., United States Navy, Assistant Director United States Naval Laboratory, New York.

The importance of an outline knowledge of the manufacture, properties, and tests of medicinal preparations, is probably not fully appreciated by the medical profession at large, and thus the chemistry and pharmacy of the *art* of medicine are gradually, but certainly, lost sight of in the rapid progress of the science.

If it be true, that the aim and object of medical progression is to improve the art of medicine in its application, then the practice of chemistry and pharmacy is as important in its bearing upon that progress as any other element. As physiology and pathology afford the light by which alone the indications and operations of vitality are seen and understood, so chemistry and pharmacy furnish the means by which these operations are modified or controlled. If scientific research and development be necessary to the successful practice of an art, the use of appropriate materials and tools is equally so. Hence it is argued that no scientific research can actively advance the practice of legitimate medicine if it does not embrace and scrutinize the materials and means by which the results are sought to be obtained.

As the demand for medicinal substances increases, the preparation of them is transferred by the physician to the dispensing pharmaceutist, and then by the latter to the manufacturer of chemicals on the large scale. These substances then take their places in the common market as articles of commerce, and are bought and sold with as little relation to their ultimate effects as other merchandise, while their character and quality are far less easily judged of or ascertained. Under such circumstances these substances, now-a-days, deserve much more earnest attention at the hands of those who use them. Chemistry receives but a small share of the attention of medical men; first, because it has become an abstruse, complicated, and subdivided science, whose advances are too rapid for collateral comprehension; and secondly, because the manufacturer of chemicals on the large scale is supposed to have taken charge of that speciality, and to furnish the necessary scientific research and knowledge, thus relieving the physician of this important tax upon his time and intellect, and at the same time furnishing his implements in the desired quantity and condition. But it so happens that the scientific research and accumulating knowledge in all branches of manufacture are rather in the direction of large profits than improved therapeutics, and therefore, practically, the profession of medicine in tacitly relieving itself of the necessity for chemical and pharmaceutical knowledge, has suffered its materia medica to be debased, and neglected the means of check and control.

It is abundantly demonstrated by daily experience that more chemical research and labor are now required to discriminate between good and bad medicinal substances, than for the proper preparation of most of them, while many, from their character, defy all proper scrutiny. For instance, it is far easier to make medicinal hydrocyanic acid, than to ascertain the strength or purity of an unknown sample, while such substances as compound extract of colocynth can never have their value determined by examination. Again, from this want of knowledge, research, and attention on the part of the physician, it happens, as in the case of Chloroform, that simple discriminative tests follow the introduction of important substances at so long intervals that the true value of the substance is lost, or much impaired, through its undetected impurities.

Of the number of pharmaceutists in the United States, the proportion of those who make their own most simple chemical preparations is very small, while of the physicians who test and examine the [illegible] the proportion is perhaps still smaller. The

physician relies upon his pharmaceutist, and the pharmaceutist relies upon the manufacturer, and thus the ultimate source of supply is not only removed beyond the confines of the profession, but beyond the reach of professional influence, except through discriminations and rejections of the articles supplied.

These are some of the prominent conditions upon which a medical skepticism, in the community and profession, is so steadily gaining ground, and therefore, the bad condition and prospects of the materia medica deserve the most serious attention from all medical men. Uncertainty in medicine is proverbial, and the rapid progress in the science has not had the effect of diminishing duly the force of the proverb in the community at large; for the slowly increasing confidence of the educated portions of the community is not proportionate to the advancement in knowledge and skill in the profession. In view of these circumstances, the writer would respectfully urge upon this association the importace of the question, as to how far the bad and uncertain quality of medicinal substances as now commonly used enters into this result,—and whether the modern reading of the proverbial uncertainty should not be directed against the implements of the art, rather than against the science.

In the failure of medicinal substances to fulfil the indications for their use, let the medical man more frequently call in question the character or quality of the agent than the sufficiency of the principles upon which the use was based.

With such claims upon this association for its interest and indulgence, the following matter is volunteered as information on the manufacture, properties, tests, and application of what is regarded as pure medicinal chloroform.

Forty pounds of chlorinated lime, previously made into a paste with water and passed between wooden rollers, is introduced into a forty gallon wooden still or barrel, and then diluted to the volume of fifteen gallons with water or chloroform washings. This mixture is then heated and agitated by the direct application of steam through a perforated pipe till the temperature rises to 145°. Four pints of alcohol are then blown into the mixture with the current of steam, and the heating continued till the temperature is about 155°, when the steam is shut off entirely and the mixture abandoned to its own reactions. Upon auscultating the still, a perfect vesicular murmur is heard. This increases gradually to active frothing ebullition, yielding vapors of chloroform, undecomposed alcohol, chlorine, hydrochloric, and acetic acids, acetic ether, aldehyde, chloride of

ethyl, acetal, chloral, &c. The remainder of the process, and that in which almost all the imperfections lie, has for its object, the separation and condensation of the chloroform, and the utilization of the residues. The mixed vapors are passed together into a leaden vessel arranged as a Wolf's bottle, and there made to bubble through milk of lime kept at a temperature of about 205°. Here the watery vapor, chlorine, hydrochloric acid, and some of the chlorinated compounds, are for the most part condensed or combined, while the more volatile substances, among which are the chloroform and alcohol, pass on to the first condenser or cooler. The water around the worm of this cooler is kept nicely regulated at about 165°, so that in it much of the vapor of water yet remaining, and almost all the alcohol vapor, is condensed and abstracted, leaving the vapor of chloroform to pass on to the final condensers in a state tolerably pure. These final condensers are supplied with cold water, and in them the remaining condensable vapors are brought to the liquid condition. The product of crude chloroform at this stage, is about thirty-six fluid ounces.

During this part of the process the contents of the still occasionally froth up, and would pass over with the vapors except for the arrangement of a cribriform cup of lead at the top of the still, inside, whereby a fine shower of cold water from a hose faucet is made to fall upon the frothing mixture.

Steam is then admitted to the still again, and the distillation continued, after the impure chloroform has ceased to separate, until the distillate no longer contains any traces of alcohol or chloroform. This weak distillate is used instead of water, to dilute the succeeding charge.

The crude chloroform is then washed three times with an equal volume of cold water, to deprive it of alcohol, acetic acid, &c., and set aside till the product of several charges is accumulated. It is then shaken with an equal volume of a dilute solution of carbonate of soda to free it from traces of chlorine, and at the end of the process, is finished by rectification from a mixture of slaked and quick lime, in a glass apparatus. The washings, except those of carbonate of soda, with the liquid condensed in the cooler, and, every third charge the contents of the lime purifier, are added to the succeeding charge, and in this way seven charges are worked off from the apparatus each day during the process.

The chlorinated lime or "bleaching powder," for this process, reacts in virtue of, and in proportion to the hypochlorite of lime it

contains; and the chlorine of this hypochlorite, which is the ultimate effective reägent, varies in general between twenty-four and thirty per cent. of the whole weight. Occasionally there is as much as three or four per cent. variation in the proportion of chlorine in the contents of the same cask, through long keeping, carelessness or design in the manufacturing, the chlorine being the expensive element.

The alcohol for this process should be highly rectified, because in this rectification, up to ninety-one per cent. for instance, it must necessarily be freed to a great extent from the grain oils and other impurities whose reactions with chlorine produce deleterious compounds.

Manufacturers on the large scale, who too often take purity of product into their scheme as collateral, use in this process whiskey, or spirits that have been recovered from other processes, as extraction of alkaloids, &c., which are cheap, but are of course filled with foreign substances, whose reaction, with chlorine, cannot be prevented nor determined. In this way, notwithstanding the assertions that have been made to the contrary, there can be little doubt that many deleterious compounds are produced in the process, and pass with the chloroform (no lime purifier being used) not only into the market where the profits are realized, but also into the lungs of the patients, and by reflection affect injuriously the credit and character of the medical profession.

These deleterious compounds are exceedingly subtile, and like many hydrocarbon compounds, are often produced in groups. From the looseness of their affinities, they are so delicate and so easily modified in character and composition, that they may be more or less noxious in a proportion that it is impossible to determine, even at different ages, of any given sample. From these circumstances it happens that they are very difficult to separate or determine; but fortunately they are not difficult to detect. If they ever occur in chloroform made properly, and from good materials, it must be very rarely, and in proportions too minute to be hurtful. A trace of acetic ether is often present in very good chloroform, even to an extent perceptible in the odor, but it is not at all hurtful in such proportion. Chlorinated lime containing twenty-seven per cent. of chlorine or hypochlorite, will yield, with the above process and management, seven per cent. of its weight of pure chloroform. And the alcohol used will yield ninety-two per cent. of the weight of the absolute alcohol it may contain; or, alcohol of ninety-one per cent. will yield 83.7 per cent. of its weight of finished chloroform.

The writer avoids in this place, as foreign to the intended practical and medical character of this paper, all discussion of the theory and reactions of the process. It is sufficient to say that chloroform is generally regarded as a terchloride of formyle, and has the ultimate formula $C_{,2}$ H. Ch_3. The chemically pure chloroform as represented by this formula should practically be associated with a little alcohol, and perhaps water, in order that it may keep well without troublesome precautions. That produced by the above process contains a little water, but is almost chemically free from alcohol, and as produced is liable to slight decomposition with the production of free chlorine. Hence it is useful and proper to add a small proportion of ordinary alcohol, so that the s. g. may be reduced from 1.498 to the officinal standard, namely, 1.49, or at least to 1.494.

The writer is convinced by observations upon chloroform made by himself, that a tendency to decomposition becomes very strong when chloroform has a purity indicated by a density above 1.497, and that decomposition will be almost inevitable when the density is above 1.498, and he believes that this circumstance explains the fact that chloroform which has been purified with concentrated sulphuric acid alone, rarely keeps well, although known then to be almost chemically pure. The acid abstracts not only the impurities as such, but also the last portions of water and alcohol. Then when a single point of decomposition is determined by light or other incitant to chemical reaction, that reaction proceeds as in a process of fermentation until the whole is decomposed. The small proportion of alcohol may prevent this in many ways, but probably by closing the circuit of the composition of the compound as the circuit of the magnet is closed by its keeper, or as the decomposing forces of some acids are controlled by combination. Thus, if the balance of affinities is disturbed in the direction of decomposition, the disturbing forces being equally efficient for recomposition when material is present in the proper condition ; alcohol, the original matrix being present, the chain is again closed and complete.

With regard to the effect of sulphuric acid, it is true that the best manufacturers in Edinburgh, where perhaps chloroform is best made and most used, do purify their product with the acid, but then they distil it from the acid after having combined the latter with Baryta. Thus after the acid has performed its office of destroying all the impurities, it is, in effect, prevented from carrying off with it the last portions of alcohol and water, by having presented to it a substance for which it has a superior affinity, and for which it abandons the

alcohol and water, and these latter are then again seized by and carried over with the chloroform. This process of purification has been long used, and is probably unobjectionable in effect. It is, however, not better than that above given, while it is far more troublesome and expensive.

The risk of decomposition from too high density is, however, one of the very least that commercial chloroform has to encounter, for, where one specimen is found to be above 1.49, hundreds are found below it. Indeed, it is very rare to meet with a specimen whose density is above 1.49, the greater number by far being about 1.46 to 1.48. Low specific gravity alone, however, does not render the preparation noxious or bad, as is shown by the common use of a tincture of chloroform. Yet, when of a low specific gravity it is almost invariably bad, from the simple fact that the manufacturer in leaving it thus, must leave other impurities in it which would have been in great measure removed by the washings required to free it from alcohol.

In short, the bad effects which are attributed to chloroform, and which have brought upon this anæsthetic a large share of the distrust in which it is held, are, in the opinion of the writer, due to the presence in it of foreign deleterious compounds, which are the result of faulty preparation and bad materials.

Fortunately these deleterious compounds may be easily detected, and by very simple means within the reach and practice of every one who can have occasion to use chloroform; and every specimen that is used should be subjected to the scrutiny. Some such simple tests for each important preparation of the materia medica, well known and freely applied by the physician, is what is now most needed by the profession. But the profession should not depend upon the knowledge and research of the chemical manufacturer for the discovery and application of such tests, for very obvious reasons.

When equal volumes of chloroform and pure concentrated sulphuric acid are shaken together, and then allowed to separate, there should be no odor, or but a mere faint tinge of color imparted to the acid, and there should be no heat developed in the mixture. Any chloroform that will satisfy these simple conditions, may be considered pure, and may be used with confidence, while all that will not, should be unequivocally rejected. In the use of this simple and easy test, the indication of color has relation to the deleterious impurities, and that of temperature to the specific gravity or dilution, for if any water or alcohol be present, their combination with the acid produces

rise of temperature. Chemically pure chloroform, when thus shaken with the acid, produces no sensible effect upon either. The chloroform of the process given, causes a faint tinge of color in the acid after prolonged and vigorous shaking, and produces a rise of temperature in the mixture of seven or eight degrees, not perceptible to the hand. The amount of heat developed may be conveniently noted by observing the force with which the stopper is thrust outward on removing it, for the rarefaction of the air contained with the mixture will produce a pressure upon the stopper exactly in proportion as it is warmed by the mixture. Differences in temperature not perceptible to the hand, may be detected in this way if the necessary precaution is observed to avoid the influence of the warmth of the hand in shaking the bottle. A thermometer introduced before and after the shaking is, however, more accurate and reliable, when accuracy is necessary.

This is by no means the only qualitative test for chloroform, but as it is the most simple and easy, and is practically reliable, it is useless to occupy time and attention with others. Few samples of chloroform as ordinarily found now, will meet the requirements of this test, and yet the preparation is generally much better than it was four or five years ago.

The slow decomposition before alluded to as liable to occur in chloroform of high density, is easily detected, first, by the odor of chlorine, which is most strongly marked on first opening the bottle,—and again, by suspending moistened blue litmus paper in the bottle above the liquid. This decomposition commences, and in most cases is limited to the vapor above the liquid. When it has seriously affected the liquid chloroform, there is little danger but that the specimen will be rejected, for the odor of chlorine is then so strong and pungent, that it becomes almost impossible to inhale the vapor. Chloroform that is undergoing the slow decomposition from too high density alone, may give no acid or bleaching reaction with litmus paper, when immersed in the liquid, nor more than the faintest possible cloudiness when shaken with solution of nitrate of silver, but if a piece of moistened litmus paper be suspended in the vapor within the bottle, it first becomes of a reddish tinge, about the edges first, and is then more or less bleached, or turned of a dingy white color. Test paper so suspended becomes more or less red within half an hour, in almost all samples of good chloroform that has been long kept, but is never bleached unless decomposition is going on. This distinction of reaction is important, and affords very clear indications. In ordinary commercial chloroform of low density, the vapor above the

liquid is rarely acid, even when the liquid itself is so. When very delicate shades of acid reaction are to be detected, the strip of blue litmus paper should be torn rather than cut at its free extremity, and the reaction looked for upon the projecting fibres of the torn edges.

It has been before stated that the addition of a small portion of alcohol prevents the decomposition of good chloroform. The addition of alcohol also arrests this decomposition, even after it has gone on for many weeks, but it does not of course free the remaining chloroform from the products of the decomposition. In this case a new rectification is required to separate the watery looking fluid which is produced, and either adheres to the bottle about the edges of the surface of the chloroform, or is diffused through it, rendering it opalescent. The appearance of this liquid on the addition of alcohol, is an unfailing test of the condition of the chloroform in this respect. New rectification from powdered quick-lime separates this fluid, and renovates the chloroform entirely.

The addition of eight drops of alcohol to each fluid ounce of decomposing chloroform, or 53 per cent. of its weight is the minimum proportion which has been successfully used, though this is not probably the limit in that direction. Such an addition, namely, 53 per cent., reduces the s. g. by .0055, or reduces chloroform of s. g. 1.4989 to s. g. 1.4934. A better proportion of alcohol is, however, 10 drops to each fluid ounce, or 66 per cent., reducing the s. g. by .0069, or from 1.4989 to s. g. 1.492.

The writer has on two occasions at least, administered without any unusual effect, chloroform that gave an acid reaction not only with suspended litmus paper, but also with that which was immersed in the liquid. But it was first ascertained by solution of nitrate of silver, that the acid was not hydrochloric.

He has also used portions that were undergoing slow decomposition, as indicated by the bleaching effect upon suspended litmus paper, and equally without bad effects.

These circumstances greatly strengthen the position assumed, that it is not chloroform, nor its legitimate elements or constituents that produce the bad effects, but foreign substances of very different nature and composition.

The specimens before the Academy are :—

First. Chloroform that is undergoing the slow decomposition. S. G. 1.4989. This is the product of the described process, without the addition of alcohol.

Second. A portion of the same chloroform in which the decomposition has been arrested by the addition of .66 per cent. of alcohol. The watery looking fluid and opalescence produced is distinctly visible. S. G. 1.492.

Third. A portion of the second specimen completely renovated by rectification from powdered quick lime. S. G. 1.492.

Fourth. Chloroform made at the same time, and by the same process as the first specimen, but of a little lower density, from being a later portion of the distillate in rectification. This having undergone no perceptible change. S. G. 1.4984.

Fifth. Chloroform made in 1853, exhibiting the strongly acid reaction of the vapor, while the liquid is neutral, or very nearly so. S. G. 1.492.

Sixth. Chloroform in the condition ordinarily dispensed in the Navy. S. G. 1.492.

Seventh. The best of four samples of chloroform as supplied to the Navy prior to 1853. As these were always obtained from the best druggists, and commonly at high prices, they probably represent the best chloroform of the common market at that time. S. G. 1.474.

The suspended moistened litmus papers exhibit the vapor reactions in each, while the separated portions exhibit the chracteristic reactions with sulphuric acid and the thermometer. The writer is under obligations to some members of the Academy, for the opportunity of exhibiting the effect of the tests upon specimens of chloroform from the best sources newly purchased, and not before seen or examined by the writer.

In the early part of the career of chloroform, it was not only very badly made, but was also badly applied, and without discrimination or proper limit, and that bad results followed is scarcely to be wondered at.

These circumstances enter largely in explanation of the fact, that of the sixty-five or six reported cases of death by chloroform, not more than three or four have been noticed as having occurred within three years, and not one very lately, while there is no evidence of abatement in its use within that time.

As there appears to be some tendency in the profession here, to take up and examine anew into the safety of chloroform as an anæsthetic, the following significant facts may be mentioned. There is no doubt that chloroform has always been, and is still very largely used in Great Britain; perhaps as freely and successfully as ether here, so that the number of cases in Edinburgh alone is now stated at over

200,000. The bona fide confidence in it, after so large an experience, is just now evinced by the circumstance of its having been administered to the Queen in her ninth parturition. If chloroform can be used there with the confidence and safety thus indicated, is it not probable that similar chloroform could be used with equal safety here?

Probably the strongest reasons why ether has been more safe than chloroform here, are,—first, that ether cannot be made from low grades of alcohol at all,—secondly, that the concentrated sulphuric acid destroys most of the impurities of the alcohol in the process of etherification,—and finally, that the manipulation of the ether process is easier, and the impurities less noxious.

Therefore bad ether may be justly considered more safe than bad chloroform, but that good ether is more safe than good chloroform, the writer does not believe.

As a corollary, therefore, it would appear that the practice of the profession has really been in the hands of the manufacturer, and it is the more to be regretted that in this respect chloroform stands by no means alone.

During the past five years the writer has made 187 pounds of chloroform for the Navy, most of which has been dispensed and used, and as yet without a single reported case of bad results. Within that time he has personally administered it for anæsthetic purposes, twenty-two times, without any apparent hazard, and with the occurrence of no disagreeable consequences greater than nausea afterward, and this in one instance only. In the case of one old man, with shattered constitution and one hepatized lung, it appeared necessary to use it very cautiously; but its use was continued through 45 minutes with excellent effect.

This very limited experience in its application, inclines the writer to agree with those who regard the respiration rather than the circulation as the function to be most closely watched, as the index to its ordinary administration.

It has not been the object of this paper to cover the whole ground upon this subject, or to occupy the time of the Academy by a recapitulation of what is already well known from other sources. Its somewhat desultory character may, therefore, possibly be excused.

Aneurism of the Aorta. By CHARLES C. HAYES, M.D., New York. Read at the Pathological Society.

The specimen of Aneurism of the Aorta before you, was taken from a patient who had been under my charge since November last. Previously he had been under the care of Dr. B. A. Clements, who, upon entering the United States Army, transferred his patient to me.

It gives me great pleasure, and it is my duty to state, that the entire credit of the diagnosis of the case belongs to Prof. Alonzo Clark. About a year since Dr. Clark examined the patient, and discovered for the first time that he was suffering from an Aneurism of the Aorta. The disease appeared so clearly and satisfactorily diagnosticated by him, it occurred to me that the case would present peculiar advantages for investigation and study.

Joseph P. Arnoux, aged 50 years. Born in New York. By occupation a ship-joiner. Frame of medium size. Formerly very muscular. Weight 160 pounds. Phthisis on his father's side was the only hereditary tendency traceable. Habits previous to the last ten years irregular. Possessing a great amount of physical strength, and having many opportunities as a ship-carpenter in the United States Navy of displaying it, from his own accounts, he not only gave, but received many a hard blow; having, during his life, been engaged in several well contested prize-fights. For the last ten years he has been a temperate, hard-working, and industrious man. Six years ago he had rheumatism, and was supposed by his physician to have had disease of the heart, having manifested some symptoms indicating that affection, such as difficulty of breathing, pain in the præcordial region, and dyspnœa greatly augmented by ascending heights. Though these symptoms did not prevent him from attending to his daily and accustomed pursuits, still his health gradually failed. Eighteen months previous to his death, these symptoms, which indicated a chronic disease of some kind, gradually increased; and in addition to them his attention was drawn to a peculiar sensation over the dorsal vertebræ, which at times was exceedingly painful, of a grinding, boring character. He was obliged to resort frequently to external applications, friction, &c., as the only means of affording relief. His wife observed that he stooped now more than formerly. During my attendance upon him since November, he did not complain of any strange sensation in the dorsal region, nor of any pain, excepting over the sternum, and in the left shoulder

and arm. There was no numbness, formication, or impaired motive power of the limb, as is sometimes experienced. For a few months he suffered more from dyspnœa, with a feeling of tightness and oppression of the chest. The respiration was attended with a harsh, wheezing, and croaking sound, which gradually increased, and was very marked towards the close of his illness. A peculiar nasal sound difficult to be described, was often noticed. The paroxysms of dyspnœa were never very violent like those of spasmodic asthma, until within a few weeks of his decease. More recently he complained of being annoyed by the eructations of gases; but as he did not experience any difficulty in swallowing, I was not inclined to attribute this to the pressure of the tumor upon the œsophagus, as has been observed by others. The pulse was at times deranged and intermittent, but I never regarded it very marked in its irregularity. Cough was occassionally present, but it was not a troublesome symptom. Three weeks previous to his death I was requested to visit with haste my patient, "as he had burst a blood vessel." I went, thinking it would be all over with him when I arrived; but was agreeably disappointed in finding him up and looking about the same as usual. He had had slight hæmoptysis from the rupture of some small blood-vessel, which had caused the alarm. He expressed great fear at the occurrence; and remarked to his wife "that the artery had burst, but he was prepared for any fatal result, his peace was made with God." I convinced him that the time had not arrived yet. The following day being stormy he kept his room, but the next day was out of doors feeling in better health and spirits than he had experienced for some time before.

Physical signs were as follows: from percussion very little satisfaction was obtained. The ordeal he had passed through at the College, made him very cautious in allowing me to percuss him, so that I gained few advantages from these signs. A hoarse aneurismal murmur synchronous with the pulse, was more perceptible above the clavicles than below. In listening to this sound over the left clavicle particularly, I found it very audible, as I descended towards the apex of the heart it diminished gradually, and there was heard in its place the sounds of the heart. Receding from the apex the sound gradually diminished, and as I approached the clavicle the aneurismal murmur was again heard. The sounds were of greater intensity over the sternal ends of the clavicles, yet they were more or less audible throughout the præcordial region. A hoarse, hollow murmur was usually heard, though it was sometimes of a hissing

character varying in pitch. This murmur coincident with the sound of the heart was, nevertheless, different in tone ; it was louder, more hollow and abrupt, and not so gradual in its rise and fall. Pulsation was distinctly felt over the superior part of the sternum. The purring tremor (frémissement cataire) was often felt over the upper portion of the sternum and clavicles, yet sometimes more distinctly than at others. Dr. Hope says, " that in old aneurisms this purring tremor is rarely occasioned ; because in consequence of their magnitude, and thickness of their sacs with fibrinous coagula, they possess little susceptibility of vibration." But as it may occur, his explanation of the cause of the tremor will account for its existence in this case, as the sac was found lined with calcareous, cartlaginous, and other adventitious deposits, making a rough surface for the blood to flow over, hence causing this abnormal sound. In regard to the treatment of the case very little need be said. Digitalis proved of eminent service to him when the difficulty of breathing from any unusual excitement became distressing. He clung with such tenacity to a prescription composed of tincture of digitalis, lobelia, and squills given to him by Dr. Clements, that I never had occasion to change ti. Aperients, and counter-irritation over the chest were occasionally employed. A week previous to his death I was called to see him at an early hour in the morning, and found him suffering from excessive dyspnœa. I ordered a hot foot-bath, sinapisms to his chest, and gave him a preparation of ether, which afforded some relief. But the anxiety of countenance, livid complexion, and purple lips, indicated that the compression of the trachea, or some of the larger bronchial tubes by the tumor, preventing the aëration of the blood, and causing congestion of the lungs, was rapidly doing its work. Expectoration, which had been more or less abundant for two months, increased, and with it a corresponding difficulty in relieving the bronchial tubes of the secretions. Though the administration of various medicines was resorted to, to alleviate the distressing dyspnœa and remove the bronchial secretions, still nothing proved of much service. He died not from hæmorrhage produced by the rupture of the Aorta, as I supposed might be the result, but most probably in consequence of aënon-ration of the blood, and inflammation of the lungs, caused by pressure of the tumor upon the trachea.

Post-mortem fifteen hours after death. Rigor-mortis well marked. Body not emaciated. Slight amount of fluid in pericardium. Patch of lymph three inches long on surface of the heart. Adhesion of

of right pleura very slight. Right lung perfectly healthy. Lower lobe of the left lung in third stage of pneumonia. Upon opening the thorax an aneurismal tumor about the size of the fist, was found adherent to the second and third dorsal vertebræ. In dissecting off which, it was found to have worn away half the substance of the vertebræ. The sac being opened proved to be a dilitation of the arch of the Aorta. It contained a mass of coagulated fibrin about the size of an English walnut, which adhered to the walls of the sac. The coats of the artery composing the sac were the seat of calcareous and cartilaginous deposit. Other parts of the Aorta appeared in a healthy condition.

Patient died April 24th, 1857, at 2 o'clock, A. M.

Removal of a large Fibrous Nasal Polypus, by the knife. Reported by G. J. Fisher, M.D., *Sing Sing.*

R. W., male, aged 19 years, white, a native of this county (Westchester), by occupation a laborer, consulted me about eight months ago, for a fibrous Polypus of the right nostril, which filled the entire nasal cavity, and protruded backward and downward in the pharynx behind the soft palate, which was pressed forward and greatly increased in length and breadth, to accommodate the constantly increasing bulk of the tumor. The voice was almost destroyed, and the miserable patient was obliged to keep his mouth distended to its utmost capacity, to enable him to breathe. His respiration was much more embarrassed at evening and during the night, while in the recumbent position; indeed so difficult was his breathing, that his friends were frequently alarmed, believing that he would suffocate before morning.

At the time I first saw him, he was pale and somewhat emaciated, with an expression of great anxiety. He informed me that he had first observed something growing in his nose, about two years before, and that it had constantly and rapidly increased up to the present time; that for one year past he had been subject to excessive hæmorrhage from the mouth and nose, frequently to such an extent as to cause syncope, followed by extreme prostration for many weeks subsequent. I advised its removal; but being rather a timid and weak-minded lad, to which may probably be added the fact of his fears of a fatal result being roused by his friends, he declined an operation for its removal, and went away.

He returned again in March, 1857, and consented to an operation, the necessity for which was now imperative: first, from the imminent danger of strangulation or asphyxia, on account of the increasing growth of the tumor filling the pharynx and intruding upon the larynx; secondly, from the exhaustion of his system by frequent and profuse hæmorrhages from the surface of the tumor; and thirdly, from the danger of the mass degenerating into cancer or some other malignant form of disease, ulceration of its more depending portion having already commenced. To all of the above reasons might be added the unsightly appearance of a gaping mouth, the sickening fetor of the breath, and the loss of voice, as well as the discomfort arising from its presence in the nose and mouth. March 28th being the day appointed for making the operation, having called to my assistance Dr. J. F. Jenkins, of Yonkers, and Dr. Perry, dentist, of the same place, we proceeded to the undertaking. Dr. Jenkins supported the head, and held down the tongue with a spatula, while Dr. Perry held the patient firmly in an operating chair. I first slit up the *velum palati*, with a pair of angular scissors, as far as the palatine bones, then seizing the mass with a strong gullet forceps, tried tortion in vain; then with a strong tenaculum drew down the polypus, and with a curbed probe-pointed bistoury, keeping as close to its base as possible, effected its separation. Upon its removal, the most profuse and alarming hæmorrhage ensued. Belloc's canula was immediately passed through the right nostril, by which a double ligature, to which a large plug of lint was attached, was brought into the place formerly occupied by the polypus; another plug in the anterior nares, over which the ligatures were secured, arrested the hæmorrhage completely. The patient having fainted during the later part of the operation, from loss of blood, which amounted to about three pints, was gradually resuscitated by the free exhibition of brandy, &c.

The following day the ligatures were loosened, but as no bleeding occurred, the plugs of lint were entirely removed; no hæmorrhage occurred subsequently, and the patient rapidly recovered. A portion of the polypus still remains in the anterior part of the nasal cavity, which it is designed to remove soon, when the voice will probably be perfectly restored. The cleft in the soft palate united partly by the first intention, the remainder by granulation. It now has an even border, the only effect of the incision having been by cicatrization, to contract the broad apron of the palate, rendering it more natural than before, as it was greatly enlarged to accommodate the bulk of the tumor.

I have reported this case on account of its being rather unusual to meet with nasal polypi so very large. In the third volume of the last American edition of Velpeau's Surgery, on the 83d page, several cases are mentioned of nasal polypi of much greater size, one of which "protuded outside of the nose into the pharynx, into the the cheek through the antrum Himorianum, into the orbit and temporal fossa, and also into the cranium, the base of which had become softened and worn away by it."

REVIEWS AND BIBLIOGRAPHY.

The Physiological Anatomy and Physiology of Man. By Robert Bentley Todd, M.D., F.R.S., &c., and William Bowman, F.R.S., &c. Part IV. Section 2nd. London, 1857.

We are happy to be able to announce the completion of this very valuable work; and with the preceding four parts of which many of our readers are doubtless familiar. It was commenced fourteen years since (1843), having been originally designed as a text-book for the lectures on General Anatomy and Physiology, given by its authors in King's College, London; and the four parts, of 200 pages each, had appeared at long intervals. The first section of the fourth part was published in 1852, and the authors explain the delay in the completion of the work as follows: "If, indeed, our pursuits had tended to no other end than the cultivation of science, this book might have been finished long ago; but the increasing interruptions incident to a professional life, and the large demand made on us by studies of a practical kind, began at an early period to impede our progress. These hindrances did not diminish as time wore on, nor were they lessened by the fact of the authorship being in the hands of two persons, however cordially united by common views and the ties of friendship, or by the necessity for frequent and prolonged conferences which that double authorship entailed." They also add that, "were it not for the kind and valuable coöperation of Dr. Beale, who is now the sole occupant of the physiological chair in King's College, we should not even yet have been released from our difficulties." "Stepping out of his proper path of independent investigation, he has carried out our intentions, and enabled us, although at the eleventh hour, to fulfil our engagements to our pupils and to the public."

The preceding eight hundred pages contained twenty-nine chapters on the following general topics, besides the introduction: The tissues and their properties; molecular and ciliary motion; the passive organs of locomotion (bones, ligaments, &c.); the active organs of locomotion (muscles); the nervous system (in fourteen chapters); digestion (four chapters); absorption; the blood; circulation of the blood; and respiration.

The present and concluding part commences with the 30th chapter, (preceded by a few pages of the 29th), and contains fifteen chapters, of which we proceed to give a rapid analysis.

The 30th chapter, on animal heat, discusses the development of heat in plants and animals, the temperature of the human body, as modified by age, sleep, exercise, and climate, and influenced by evaporation, by food, by disease, and by the nervous system. The heat of the body is produced by the union of oxygen with the carbon, hydrogen, phosphorus, sulphur, &c., in the tissues, and in the blood; but principally with carbon and hydrogen, resulting in the formation of carbonic acid gas and water. The same amount of heat is produced by the combination of oxygen with these elements in the body, as would have been out of it; and the great object of the aëration of the blood is, to free it of the carbonic acid gas thus constantly formed, and also to ingest more oxygen at the same time for the continuance of this oxidation-process. The average temperature of the internal organs is 98° (Fahrenheit) and above, that of the surface being 1° to 2° less. The hands and axillæ have, however, a temperature of 98° or 99°. As a proof of the cooling towards the surface from within, Becquerel and Breschet found the temperature of the calf of the leg at one-third of an inch from the surface was 94°, while at the depth of one and a half inches it was 98°. The highest temtemperature in dogs occurs in the vagina and rectum (101.75° to 105.790). The muscles become hotter by 2° or 3° during contraction. During sleep the temperature falls 1° to 3°. Old persons and children cannot generate sufficient heat without increased aid from apparel. Doubtless much of the immense mortality of infants in this city is due to the want of artificial heat incident to the present fashion of dress. There is less calorific power in the human body in Summer than in Winter, and hence a sudden depression of temperature to a given amount in Summer is more productive of mischief, if not guarded against, than in Winter.

Chapter 31st is upon the voice; how produced; structure of the human larynx; action of the laryngeal muscles; the nerves; chest

voice; falsetto voice; singing; and speech. The pitch of the voice varies with the tension of the chordæ vocales; its loudness with the size of the aperture of the glottis. The following tabular arrangement shows the precise action of each of the intrinsic muscles of the larynx in modifying the pitch and the intensity of the voice:

Crico-thyroidei.	Stretch the vocal cords.	Govern the pitch of notes.	
Thyro-arytenoidei.	Relax and place the vocal cords parallel, for vocalization.		
Crico arytenoidei postici.	Separate the front of the arytenoid cartilages.	Open the glottis.	Govern the loudness of notes (i. e. the aperture of the glottis).
Crico-arytenoidei laterales.	Press together the front of the arytenoid cartilages.	Close the glottis.	
Arytenoidei.	Press together the back of the arytenoid cartilages.		

Chapter 32d is on secretions and excretions; the anatomy of secreting organs generally; the gland-cell; gland-ducts, &c.

Chapters 33 and 34 discuss the secreting glands; the pancreas, liver, and kidney. Dr. Beale's researches in respect to the minute structure of the liver are given at length; according to which the "parenchymal cells" of the liver are contained in prolongations of the hepatic ducts, and the liver, therefore, does not differ essentially in its minute structure from other compound glands, as Kölliker and others had maintained.

Chapter 35th is headed "ductless glands;" including the spleen, the thyroid, and the thymus glands, and the supra-renal capsules. Mr. Gray's work on the spleen is the main authority referred to in regard to that organ, and his idea of its function is adopted, viz: that it is a diverticulum of the hepatic circulation; disintegrates the red corpuscles of the blood, and stores up albuminous matter from the food for future use, when more is taken than is immediately required. Nothing positive and precise is yet known of the function of the supra-renal capsules. They evidently have no functional connection with the kidneys; and the experiments of Brown-Sequard show that they are very important in the economy. There is nothing new respecting the thyroid; nor, since the investigations of Mr. Simon, in regard to the thymus.

Chapters 36 to 40 inclusive, discuss the subject of generation. The principal topics considered are: fissiparous and gemmiparous generation; metamorphosis and metagenesis; sexual organs in the invertebrata and the vertebrata; male organs of generation; female do. do.; puberty and menstruation; maturation and discharge of ova; heat and rut in animals; corpora lutea, true and false; impregnation of the ovum; micropyle; changes succeeding impregnation.

By *metamorphosis* is meant a change of form in the same embryo

during its development, as the *larva* and the *pupa* states of insects through which they pass before assuming the *imago*, or perfect form. In *metagenesis* the larva produces other larval forms without any generative act, and then die; when the second generation of larvæ produce a third in the same way, and so on till at last the perfect being appears. Sometimes, however, the first larvæ produce the perfect being; the latter, however, always producing *ova* (and not larvæ) in consequence of a generative act. Steenstrup has termed this process *alternation of generations;* and Prof. Owen, *parthenogenesis.* As an illustration, Von Siebold has shown that the *cysticercus fasciolaris*, or fluke, found in the liver of the rat and mouse, becomes in the intestines of the cat, the *tænia crassicollis*, or common tape-worm of that animal. There are valid reasons for believing that the human tape-worm is derived from the liver-fluke of some lower animal, and very probably the hog.

It is certainly settled by Mr. Newport that in impregnation the spermatozoids actually penetrate and pass through the vitelline membrane of the ovum, and are thus brought into contact with the yolk in the interior, when they disappear, becoming liquefied. But how can the delicate spermatozoids penetrate this membrane? In all insects, and in fresh water fishes, there is one or more *pore* or *tube* passing through the membrane of the yolk, and opening on its interior. This passage is termed the "*micropyle*," and through it the spermatozoids pass into the yolk. Dr. Ransom found that spermatozoids might remain for eighteen minutes in contact with the ovum without producing any sensible change in the latter; but if one of them entered through the micropyle, a change occurred in about a quarter of a minute. His observations were made on the ova of the stickleback. The micropyle has not yet been seen in the mammalian ovum; but Remak regards certain streaks in the zona pellucida as pores or micropyles through which the spermatozoids may pass.

Chapters 41, 42, and 43, are upon the development of the embryo, and is a very able digest of the present state of human embryology.

The 44th and concluding chapter is upon lactation; giving an account of the structure of the lacteal gland, and of the chemical composition of milk.

The subjects in this part are illustrated by eighty-nine wood-cuts by Vasey, several of them being from drawings by Dr. H. Hyde Salter. Twenty-five of them are original with Dr. Beale, and ten of these are from his work on the Liver. Of the remainder, a considerable number are from Kölliker's work, already reviewed in THE

Monthly.* The only original illustrations from either of the authors, are seven from Mr. Bowman illustrating the minute structure of the kidney, and one, that of the liver. Evidently Dr. Beale has well accomplished the authors' intentions, and this part gives a resumè of the present state of science in regard to the subjects on which it treats. Of the preceding parts, also, we can still express a high estimate, though many advances have been made in histology and in physiology since the work was commenced.

Transactions of the Medical Society of the State of New York. Transmitted to the Legislature February 9, 1857. Albany, 1857.

Fifty years ago, that is, in February, 1807, a Convention of delegates from twenty-two County Medical Societies, of the State of New York, met in Albany for the purpose of organizing the "Medical Society of the State of New York." This year this Society assembled to celebrate its semi-centennial anniversary. It was becoming, then, that at this time a retrospect of the events prominent in the history of medicine during the last fifty years, as well as those collateral to it, and which indirectly may have aided in the advances that have been made, should be taken. The President of the Society fulfilled this duty in his address, which forms the opening paper in these Transactions. Of the original number which composed the first meeting none live to tell the story of that day, and of the thirty-one different individuals who have presided over the deliberations of this Society, more than one-half have passed away forever. Their footprints upon the sands of time, however, remain, and Dr. March has in his address rapidly and briefly noticed some of the leading and most striking discoveries which were known to them, and left behind as a legacy to us.

In drawing the contrast between 1807 and 1857, Dr. March thus speaks of the superior advantages in the means of medical education :—

"In 1807, there were not half a dozen medical schools in the United States ; nor scarcely a greater number of hospitals. Now there are about forty medical colleges, or associations, where medicine and surgery are taught ; and it is probable that there are twice that number of hospitals scattered through the cities and large towns of the United States."

* Vol. I. No. 2.

"When our medical colleges and schools were limited to five, and the hospitals of this country but a little more numerous; when the whole apparatus, chemicals, and chemical tests of the chemist's laboratory could be almost packed in a bushel; when the anatomical museum of a college consisted of two or three smoky skeletons, a handful of disjointed bones, and a few coarsely injected preparations; and when a pathological cabinet was not known in our country,—it requires no very great stretch of the imagination to draw the contrast between the advantages of 1807 and those of 1857, for obtaining a thorough practical medical education."

What is so ably done for the State Society by Dr. March, has been very pleasantly accomplished for the Albany County Medical Society by Dr. Sylvester D. Willard. This society is one of the original twenty-two county societies whose delegates composed the first State society. At its meeting in November, 1856, which was also its semi-centennial anniversary, Dr. Willard gave an historical address, which is included in the Transactions as its second paper. A brief sketch is here given of each of the ten members present in 1806, and an effort was made to learn who were the physicians and surgeons of the county during the two centuries which intervened from the founding of Fort Orange, and the commencement of the period when the men here mentioned began their career as guardians of the public health. The past, however, was silent, and Dr. Willard has snatched one name only from the oblivion of the tomb—Dr. Abraham Staats. He has, however, done justice to the memory of the founders of the Albany County Medical Society, and has given a very interesting historical paper, whose pages will afford material to him who, fifty years hence, may have to weave the story of a century.

The third paper is an *Eulogy on Samuel Mc Clelland, M.D.*, by Thomas W. Blatchford, which is followed by a *Biographical Sketch of John McClelland, M.D.*, by Thomas C. Brinsmade, M.D., and a *Biographical Sketch of Henry Mitchell, M.D.*, by Augustus Willard, M.D.

The next paper is by Dr. EDWARD H. PARKER, on *Cholera Infantum, Diarrhœa, and Entero-Colitis—their relation to each other, their Pathology, and their Treatment.* This paper has been presented to our readers in the pages of the MONTHLY for May.

Improvements of the Public Health, and the establishment of a Sanitary Police in the City of New York, by JOHN H. GRISCOM, M.D., is the title of the paper which follows. It is an urgent, eloquent,

sound plea for a more thorough attention to sanitary laws. In it Dr. Griscom emphatically states that sanitary science does exist, although seemingly ignored by government and legislation, and that by means of it the laws of the growth and progress of epidemic disease, and the means of prevention are pointed out. The diseases amenable to preventive sanitary law are those known as the zymotic class, and Dr. Griscom says that in New York city the mortality from these diseases in ordinary years, averages over 25 per cent. of the whole, and to this may be added 25 per cent. more arising from scrofula, the result of bad air, bad diet, darkness, and destitution, clearly under the beneficial influence of sanitary regulation.

In views of these facts and others even more striking, he calls upon the State Society to exert its influence with the Legislature in demanding, "in the name of humanity and Christianity, that they interpose between us and disease those safeguards of science and law, which are able to save us from a large proportion of loss of property, health, and life."

Dr. George Burr communicates the next paper, on *The Types of Fever*. "Type, as applied to fever, signifies," says Dr. Burr, "a peculiar form, or character of the disease which distinguishes it from other varieties of fever." In considering the different forms of fever, as regards their type, no notice is taken of those which are symptomatic of some local disturbance, arising from phlegmasiæ, nor of those attending the appearance of any of the exanthematæ, but fever is only regarded as idiopathic, invading the whole system and involving all the functions of the body.

The grand division in the character of idiopathic fever, made by the author is that of *malarial*, or *intermittent*, and *continued* fever.

In the first periodicity is the distinctive feature; in the second, the absence of any intermission of the febrile movement. Malarial fever has several sub-varieties, of which intermittent fever, or fever and ague is the simplest form. "This type is characterized by the occurrence of a chill, followed by fever of more or less intensity, which continues for several hours, when the fever is succeeded by profuse perspiration, forming what is called the last or sweating stage."

Bilious remittent fever is another sub-variety, distinguished from the preceding by the intermission between the paroxysm being less distinctly marked, sometimes not perceptible.

Congestive or pernicious fever is yet a third sub-variety, the type of which is that of a prolonged or continuous chill without the usual febrile reaction.

Each of these varieties is traced out by Dr. Burr. The phenomena present in each are graphically described, their rise and progress, and the regions of country in which they most frequently appear, as well as the season of prevalence are pointed out.

The symptomatology and pathology of malarial fever are discussed, and the causes briefly recapitulated, in this paper. Yellow fever is regarded as a variety of periodical fever, though differing from both malarial and continuous fever, being a class *sui generis*.

This paper closes with the consideration of the prevalence of fever in the different regions of the State. It is quite general, occurring rarely in an epidemic form. "The profession," says Dr. Burr, "does not, however, appear to regard this fever alike. It is often denominated typhus fever, typhoid fever, &c., others believe it to be malarial in its character, and of the remittent type." To this latter opinion he inclines.

The subject of continued fever is reserved for another report.

Dr. ORSON M. ALLABEN is the author of the next paper, which is entitled a "*Case of Death by Syncope from plugging of the Pulmonary Artery.*" The post mortem revealed an organized substance which probably had become detached from some part of the ventricular cavity, and carried by the impulsion of the heart into the pulmonary artery, which it closed, "thereby cutting off the supply of blood to the lungs, the left side of the heart and brain, and causing immediate death by permanent syncope.

The next in order is a paper on *Gangrenous Erysipelas*, by Dr. W. S. NORTON. A case is reported which was treated by free incisions, application of strong terebinthinated tincture of cantharides, followed by poultices, and stimulation by brandy punch.

The next is a *Case of Ovarian Tumor, successfully removed by extensive Abdominal Section, and recovery of the patient*, by NELSON WINTON, M.D. This case, if we are not mistaken, has already appeared in print, and it somewhat surprises us that it should have been admitted by the Committee on Publication, although an interesting case, as it was not originally communicated to the State Society, having been published previous to this meeting in the *Buffalo Medical Journal*. Previous to the operation the patient had been operated upon for paracentesis abdominis nineteen times, and altogether, 210¼ pounds of an albuminous fluid removed. The tumor removed was multilocular, and weighed twenty pounds.

The paper which follows is by U. POTTER, M.D., entitled *Medullary Sarcoma*, being an account of a case operated upon, which

resulted fatally. The growths were presented to the Society for examination showing the different morbid appearances in different stages of development, accounting for the various names which have been applied to this disease.

Our limited space prevents us from giving that attention to the next paper which the subject and the value of the suggestions of the writer really deserve. Dr. BISSELL, in his paper on *Vaccination*, urges "an appropriation by the State of a few thousand dollars to enable this society, or some other more suitable organization (if such can be found), to establish and maintain proper depots for keeping and distributing vaccine virus, where physicians may at all times obtain it."

He also urges "the passage of an act by Legislature making vaccination 'a pre-requisite for admission into any public school,' or into any legalized volunteer company, and one of the sanitary rules of every public institution, educational, penal, or charitable," believing that these efforts would tend to check the spreading of small pox. We have some thoughts upon this subject which we should be glad to give in this connection, but our already too lengthened notice compels us to defer it for the present. The presence of small pox in our midst, and the apparent increase of mortality from this cause during the past year, makes some legislative action imperative, for we know that a means is in the possession of every one to guard against the approach, and to limit the ravages of this serious and loathsome disease.

Supra-malleolar Amputation. Its Relative Value. By C. V. BARNELL, M.D., is the next paper. It is the record of a case in which amputation was performed, as the title of the paper indicates, and the author gives preference to it above other operations, for the reason that upon the application of an artificial limb the body is supported by the bones at the point where the lower ends are largest, and when every tendon takes a ready and firm attachment to the end of the bones. This gives the attachments of the tendons for a resting point, instead of the small pointed ends of the bones pushing into a mass of flesh, as in case of amputation in the fleshy part of the leg.

A paper on *Hæmorrhage of the Urethra*, by N. C. HUSTED, M.D., is the next. This is also a report of a case. The hæmorrhage began during an intercourse, continued till it produced faintness, but ceased upon the application of cold to the penis and perineum, and the administration of Tr. ferri. mur. internally.

A case of Chronic Tubercular Splenitis: resulting in abscess, or entire disorganization of the parenchyma of the gland, by G. J. FISHER, M.D., closes the proceedings of the Society. The spleen examined after death was four times its natural size, and when first examined fluctuated. Upon incision it was found to be a mere sac, filled with a liquid or semi-liquid disorganized mass, which appeared to consist of pus, and the broken down or disorganized parenchyma of the spleen. The lungs were studded with miliary tubercles; the liver was indurated and exhibited numerous small tubercles.

Dr. Fisher has done a good service to the State Society, and to all those who have complete or uncomplete sets of the Society's transactions, in the carefully prepared Table of Contents and General Index, which concludes the volume of the present year. These extend from 1832—when the first volume was published—to 1856, the transactions previous to 1832 not appearing, addresses of the Presidents of the Society only being printed. The contents of the present number should have been added to the table furnished by Dr. Fisher, when it would have been complete for fifty years.

Constitution and By-Laws of the Westchester County Medical Society, and the Proceedings of the Society at its Annual Meeting, held in the Village of Sing Sing, June 3, 1856. *Sing Sing,* 1857. 50 *pp.*

If we are not mistaken, this is the first time that the Westchester County Medical Society has ever published its proceedings. It now comes in a form in which the reports and papers read may be of value to others outside the limited numbers of its members, and it would be well for other county societies to imitate its example,—not in deferring the publication of its proceedings till they have reached the mature age of this society, which is now nearly fifty years old,—but in sending out to the profession the experience of the year, in a permanent, tangible form.

The great value and influence of the State Medical Society, is in a great measure dependent upon the cöoperation of county societies, and certainly if every county in the State would perform its duty in this respect as well as has Westchester County, the State transactions would offer still greater attractions, and be of even greater influence and worth.

The proceedings of the Westchester County Society, now issued, do not refer to any previous meetings, but the volume contains those

of the year 1856 only, with the addition of the Constitution and By-Laws.

The first paper is a *Report of the Committee on Medical Topography, Epidemics, and Endemics of the Southern Section of Westchester County; by* J. D. TRASK, M.D., *of White Plains.* It is a very admirable report, and speaks well for the readiness with which the practitioners of that section of the county responded to the call of the reporter. An effort is made in this report to investigate the sources of malaria, in those localities where it always prevailed more or less, as well as in other places in which it has more recently appeared, and it is remarked by the reporter that the wide spread atmospheric influence which has passed to regions never before affected, did not seem to increase, either in frequency or virulency, such diseases where they have previously appeared, but that the poison was diffused to new localities. The topography of various localities in the county, in relation to this class of disease, is investigated, and the character of the season as regards heat and moisture adverted to. The inference which Dr. Trask draws from the facts presented, is that with scarce an exception, those districts in which malarious diseases occur are in the vicinity of ponds, or of streams obstructed by mill-dams, or are underlaid by a bed of hardpan, which interferes with the drainage of the surface ; and the seasons during which these diseases have especially prevailed through this portion of the country, have been accompanied or preceded by an unusual prevalence of both warm and rainy weather. The prevalence of other diseases, either epidemic or sporadic, are spoken of, and in some instances the treatment in individual cases are given.

In reading this report, we have especially noticed the administration of veratrum viride in remittent fever, by Dr. Gates, of Yonkers, and in a case of pseudo-membranous croup, supplied by Dr. Moulton, of New Rochelle, to Dr. Trask. On account of the favorable result from the use of this remedy in the latter disease, we extract the entire report of this case :

"A little girl aged five years was attacked in the evening, and took five grains of calomel, and one drop of Norwood's Tincture of Veratrum every half hour, and after three doses, every fifteen minutes, until the end of the second hour, when she vomited, and the pulse had fallen from 136 to 120 per minute. The wet towel covered with flannel was applied to the throat. At the end of the third hour the pulse was but 86, and in fifteen minutes longer was reduced to 73,—cough still croupal. After this she was kept under its influence

by varying doses, and she recovered. I have treated four other cases in the same manner, and always with satisfactory results; in no case was there any return of laryngeal spasm, or any alarming symptoms after the system was brought under its influence. In a female child, three years old, the pulse was reduced in three hours from 158 to 70 per minute; all signs of the disease disappeared, though symptoms of bronchitis followed, with a very annoying cough for several days. Young children with croup, high fever, and I think during apyrexia bear a larger quantity of this remedy than adults do in other diseases."

A very practical paper by Dr. G. J. FISHER, of Sing Sing, follows, entitled *Cases illustrating the effects of Needles accidentally penetrating different portions of the Body.* The counsel which advises the non-interference with these bodies, unless they can be easily removed, is reprehended, and it is emphatically laid down as the "duty of every surgeon to make immediate and thorough search for needles, or parts of needles, that have been driven into any portion of the body, where an operation for their removal can be made, without involving a serious risk of wounding some very important nerve, or other structure, or of exciting a high degree of inflammation." A case is reported where a darning needle, three inches long, had been swallowed, and fourteen months afterwards was removed from above the calvicle, towards its outer extremity, having probably passed through all the tissues, and some of the organs between the stomach and the point of removal.

A second case, where a portion of a needle left in the hand, was removed two years afterwards, having traversed the forearm, causing intolerable pain, a partial paralysis, emaciation, and loss of use of the limb. As the result of the operation, the patient regained the entire use of the arm.

A third case, where a needle was driven into the cavity of the knee-joint and broken off, the point entering the capsule of the joint. It was allowed to remain two days before any attempt was made to remove it. Dr. Fisher was then called in and removed it, but synovial inflammation had already set in, and the result was anchylosis of the joint. Dr. Fisher believes this could have been avoided by a speedy removal of the broken needle at the time of the accident

The next paper is an apology for a Report on Surgery for the Northern Section of Westchester County, by G. J. Fisher, M.D., in which the usual complaint of chairmen of committees is reiterated, that no response had been made to their call for communications, and hence no report.

This is followed by the report of a case of *Loose Cartilage in the Knee-joint—Removal by an operation*—by Dr. G. HODSON, of White Plains. A long incision was made over the loose cartilage, down to the investing sac, in the direction of its long diameter; a second incision opened the sac, the knee was firmly bent, when the loose cartilage suddenly sprang out upon the floor.

The transactions close with a *Case of Phlegmasia Dolens after Typhoid Fever: and the same of the upper and lower extremities after Parturition;* by JAMES FOUNTAIN, M.D., of Jefferson Valley.

The treatment in both instances was full doses of opium and camphor, with emetics of Tart. Antim.

The Report of the Resident Physician of the New York Lunatic Asylum, Blackwell's Island, for the year 1856. *New York*, 1857.

The Report of the Resident Physician of the New York Lunatic Asylum, Dr. M. H. Ranney, is made to the Board of Governors, who have charge of those charities situated upon Blackwell's Island. It furnishes no exception to the general complaint from institutions of this kind, of the crowded state of the accommodations for patients. The number of those who are incurable, yet requiring the protection and care of an asylum, constantly increases, as the statistics in the pages of this report show. The whole number of inmates of this Asylum has doubled every ten years, though the number of annual admissions has not increased, indeed, on the contrary, has been less the last year than for any previous year since 1847. The daily average number of inmates during 1856 was 595; the number of admissions 366, of whom 69 were natives and 297 foreigners. Of the number discharged (276) 174 had recovered, and 81 were improved. The recoveries, as compared with the admissions, amount to about fifty in a hundred.

From the statement of the mortality in the Asylum we extract the following, which contains a warning to every one who dissipates his nervous resources, whether by mental labor or the exhausting habits of a metropolitan life:

"Sixty-six patients died during the year, making the mortality seven per cent. of the whole number (939) under treatment. This per centage is smaller than that of any previous year; the average mortality of the past ten years having been thirteen per cent. Although the general mortality has been so much diminished, yet, in a few

diseases there has been a decided increase, especially in that known as 'Paralysie Générale.' This fatal disease, which but a few years ago was described as rare, has increased to such an extent in the city, as to have been the cause of nearly one-fourth of all the deaths in the Asylum the past year. It seems to result from a disorganization and softening of the cortical portion of the brain, involving, if the disease be protracted, the medullary substance. Almost universally certain in its results, its victim seldom survives a longer period than two years after the first symptoms are exhibited. Indeed, so fatal is it in its character, that in no case have I seen recovery follow, where the symptoms were sufficiently well marked as not to admit of doubt. High living, late hours, and strong mental excitement combined, have been considered the most frequent causes of this disease."

The Physician's Prescription Book: containing a list of terms, phrases, contractions and abbreviations used in prescriptions, with explanatory notes; also, the grammatical construction of prescriptions, etc., etc.; to which is added a key containing the prescriptions in an unabbreviated form, with a literal translation, intended for the use of medical and pharmaceutical students. By JONATHAN PEREIRA, M.D., F.R.S. Lindsay & Blakiston, Philadelphia, 18mo., pp. 282.

This rather full title expresses very well the purposes of the book, and does not need any further minuteness of statement. The importance of writing prescriptions accurately, must be acknowledged; for it is not only a matter that concerns a physician's reputation as a scholar, but it may involve the life of a patient. It is getting to be the fashion with medical men, as well as others, to decry the use of Latin for this purpose, and to urge that our mother tongue be resorted to. In some respects there would be advantages in such a change; but, on the other hand, there would be disappointment in those who suppose that by such means we should rid ourselves of all difficulties. The well-educated and careful physician who sends his prescriptions to a well-educated and careful apothecary, will not make serious mistakes, whether Latin or English is used; and neither English or Latin will save the ignorant and careless from fatal blunders. The necessity of education, which is required by the use of Latin, is one argument in favor of its continued use. So long as it is used, this book will be of very great value not only to students, but to practitioners, for their memories will grow rusty, and they will fall into habits of writing prescriptions which are neither elegant nor accurate. We therefore commend this book to every one.

PROCEEDINGS OF SOCIETIES.

Tenth Annual Session of the American Medical Association.

NASHVILLE, May 5, 1857.—The Association met at 11 o'clock, in the Representative Hall of the State Capitol, the President, Dr. Zina Pitcher, of Michigan, in the chair, and upon his right Dr. W. K. Bowling, of Tennessee, one of the Vice Presidents. Dr. William Brodie, of Michigan, and Dr. R. C Foster, of this city, Secretaries, were present.

The meeting having been duly organized, the first business in order was stated by the Chair to be the reception of the report of the Committee of Arrangements.

Dr. C. K. Winston, chairman of the Committee of Arrangements, on behalf of the committee and of the medical profession of the city generally, extended a sincere and cordial welcome to the members of the Association, in a few pertinent and appropriate remarks.

Dr. Winston then proposed that the roll of delegates, who had registered their names, should be read. The roll having been called, it appeared that twenty States were represented.

Upon the suggestion of Dr. C. K. Winston, Drs. Felix Roberston, John Shelby, and James Overton were made permanent members of the Association.

The President then stated that it was customary to take a recess of fifteen minutes in order that the different State delegations might appoint a member to serve on the Committee on Nominations, and the Association took a recess accordingly for that purpose.

At the expiration of the recess the Association was called to order, and the State delegations then reported their choice respectively of delegates to serve on the Nominating Committee.

On motion of Dr. Hooker, of Connecticut, it was resolved that the President, Dr. Pitcher, be now requested to deliver his annual address. Dr. Pitcher accordingly gave his retiring address, which is too long to be given in our pages.

The report of the Committee on Publication being called for, it was read by Dr. Casper Wister, of Pennsylvania, and on motion, was accepted and referred to the Committee on Publication.

Dr. Wister also read his report as Treasurer, which was received and adopted.

On motion of Dr. Flint, of Kentucky, Dr. R. T. Fleming, of Kentucky, was admitted as a member of the Association by invitation.

The committee on Prize Essays being called upon to report, requested further time, because of the late hour at which the essays were handed in, which was granted.

The President informed the Association that Dr. F. Campbell Stewart, of New York, Dr. Alden March, of New York, Dr. Isidor Glück, of New York, and Dr. Pancoast, of Pennsylvania, had been appointed to represent this Association in foreign scientific bodies.

The Committee on Medical Education was called, but made no report.*

The Committee on Medical Literature was called—no report.

The Committee on Medical Topography and Epidemics being called, a communication from Dr. J. C. Watson, of Maine, was read, asking for further time to make a report, which was granted.

Dr. Arnold, of Georgia, offered the following resolution, which was adopted :—

Resolved, That the Committee on Nominations be constituted a standing Committee during the present session of the Association, to which shall be referred all business of the Association on which an immediate vote is not required.

Dr. Jas. Mauran, of the Committee on Medical Topography and Epidemics for Rhode Island, being called for, the Secretary read his apology, which was accepted.

Dr. Peregrine Wroth, of same Committee for Maryland, sent in his report, with accompanying reports of Drs. A. M. White and Edmund E. Waters, which were received and referred to the Committee on Publications.

Dr. W. L. Sutton, of same Committee for Kentucky, sent an apology and asked for further time, which was granted.

The members of the same Committee for the States of New Hampshire, Vermont, Massachusetts, New York, New Jersey, Pennsylvania, Delaware, Virginia, District of Columbia, South Carolina, North Carolina, Tennessee, and Minnesota, being called, no reports were made.

The delegates from Connecticut and Louisiana being absent for the time, the consideration of their reports was postponed until to-morrow.

A report from Dr. J. F. Posey, of Georgia, was presented by Dr. Arnold, and subsequently withdrawn by him for the purpose of preparing an abstract of it.

The Committee on Nominations then appeared, and through their Chairman, Dr. J. B. Lindsley, reported the following officers of the Association for the ensuing year, viz :—

President —Dr. PAUL F. EVE, of Tennessee.

Vice Presidents.—R. J. Breckinridge, of Kentucky ; D. M. Reese, of New York ; W. H. Byford, of Indiana ; and Henry F. Campbell, of Georgia.

On motion of Dr. Arnold, of Georgia, the report was accepted.

The President-elect being absent, the Association adjourned.

Second Day, May 6—The Association met pursuant to adjournment.

Drs. Wister, Arnold, and McGugin, were then requested to conduct the newly elected officers to their respective seats.

Dr. Eve, of Tennessee, in taking the chair, addressed the Association, as follows :—

Gentlemen of the American Medical Association :—It is with deep

* Received after the adjournment.

emotion that I attempt to return you my heart-felt thanks for this distinguished honor. In elevating one so unworthy of this station, so ill-prepared to preside over your deliberations, or carry out the great designs of this body, I must express the apprehension that you have done yourselves injustice, and, it may be, not advanced its best interests. But, believing that this office should neither be sought nor declined, when tendered as it has been, after my State had declined to take any part in the nomination of a presiding officer, I enter upon the discharge of its onerous duties with much diffidence, and shall have frequent occasion to throw myself upon your considerate indulgence.

We are engaged, gentlemen, in a good and noble work. Life, the greatest of human blessings, and health, the sweetest stimulus to earthly enjoyments, are our end and aim. We live to secure the one and to preserve the other. To promote these all important objects, the medical profession of our country have, during the past twelve years, annually appointed delegates to assemble and counsel how this may be effected. And we are here to-day on one of these great festive occasions, and, amidst our mutual congratulations, these glorious reünions of good-will and fellowship among the brotherhood, must not forget that to us is committed the health and lives of others. In maintaining the honor and increasing the usefulness of medical science, we become the best contributors to the welfare and happiness of those around us. You have come up hither from the North and from the South, from the East and from the West, and have done well neither to count the cost nor calculate the sacrifice; for the cause in which you are engaged is worthy of you. You present again the sublime spectacle of brethren from all sections of this widely extended Union, congregated to devise the best means to relieve suffering humanity; and may I not add, we are here with

> "Our souls by love together knit,
> Cemented, mixed in one;
> One hope, one heart, one mind, one voice."

Dr. Hooker, from the Committee on Medical Topography and Epidemics for the State of Connecticut, being called on for his report, arose and explained that it was his understanding that the Committee were to have three years in which to make their report, and at the end of that time he would either be prepared or ask the indulgence of the Association for further time.

The President, under a resolution passed at the last meeting, appointed Drs. Currey, Grant, and Evans, a Committee on Voluntary Contributions.

Reports now being in order, the report of Dr. Posey, of Georgia, was called for. Dr. Arnold, of Georgia, read an abstract of the report of Dr. Posey; all of which, on motion of Dr. Palmer, of Michigan, was referred to the Committee on Publication, under a suspension of the rule.

On motion of Dr. Wood, of New York, the reports which were

presented yesterday, were also referred to the Committee on Publication, under a suspension of the rule.

The State of Ohio being called upon for a report upon its Medical Topography and Epidemics, the Secretary read an apology from Dr. G. Mendenhall, who asked further time in which to make a report, which was granted.

The States of Mississippi, Missouri, Michigan, Illinois, Indiana, Wisconsin, Iowa, California, and the United States Navy, being called, no response was made.

A telegraphic despatch from Dr. J. M. Sims, of New York, who was to report on the Treatment of the Results of Obstructed Labor, was received and referred to the appropriate Committee.

A communication was received from the Southern Methodist Publishing House, inviting the members of the Association to visit that establishment, which was accepted.

A communication was read by Dr. Lindsley, of Tennessee, from the Medical Association of Washington City, inviting the National Association to hold their next annual meeting in that city. On motion, the communication was referred to the Committee on Nominations.

A resolution was offered by Dr. Bartlett, of Wisconsin, tendering a vote of thanks to the late President, Zina Pitcher, for the able manner in which he has presided over the deliberations of this body, which was unanimously adopted.

The reports of Special Committees for 1856–7, being next in order, they were called in order as follows :—

Inflammation—Its Pathology, etc.—Dr. E. R. Peaslee, Maine; asked further time. Referred.

Anatomy and Histology of the Cervix Uteri.—Drs. H. Hutchinson and Charles E. Isaacs, New York ; no report.

Treatment of Cholera.—Dr. J. Taylor Bradford, Kentucky ; no report.

Treatment best adapted to each variety of Cataract, etc.—Dr. Mark Stephenson, New York ; further time asked. Referred.

Causes of the Impulse of the Heart, etc.—Dr. J. W. Corson, of New York ; a communication was received, and on motion of Dr. Brodie, he was continued.

Causes of Infant Mortality, etc.—Dr. D. Meredith Reese, of New York, read an abstract of his report, which was referred to the Committee on Publication.

The venerable Dr. Shelby, of Tennessee, being present, was invited to a seat on the platform. His appearance was warmly acknowledged.

Dr. Hobbs, of Illinois, offered the following resolution :

Resolved, That a Committee on Essays (not including Prize Essays) be appointed, to whom all essays prepared for publication by this Association shall be referred, which committee shall transfer to the Committee on Publication, all essays they judge worth publishing. That said Committee on Essays make a full report of their proceedings to the Association at its next annual session ; provided, authors

of rejected essays, being informed of said rejection by said committee, shall have the privilege of withdrawing their essays from the report of the committee to the Association.

On motion of Dr. Palmer, of Michigan, the resolution was indefinitely postponed.

The Secretary read a protest signed by Drs. Richard D. Arnold, J. Gordon Howard, Pike Brown, and George P. Padleford, against admitting the delegates from Oglethorpe Medical College, as follows:

NASHVILLE, May 6, 1857.

The undersigned, members of the American Medical Association, protest against the admission of delegates from the Oglethorpe Medical College of Savannah, on the ground that it is not a regularly organized college, it being a matter of public notoriety in Savannah, that during neither of the two sessions of its existence, have all the chairs been regularly filled. During its first session the chairs of Physiology and Materia Medica were not filled, except by a very few lectures by the gentleman appointed to them, and the same thing occurred during its last session as to the chairs of Materia Medica and Chemistry. All of which is respectfully submitted.

RICHARD D. ARNOLD, M.D.
J. GORDON HOWARD, M.D.
PIKE BROWN, M.D.
GEO. P. PADLEFORD, M.D.

After some resolutions were offered and some discussion,

On motion of Dr. Palmer, the whole subject was referred to a committee of three, to be appointed by the chair.

Dr. Brodie, of Michigan, moved as an amendment, that no Faculty Member of a Medical College be appointed upon the committee, which was accepted by the mover.

The Chair appointed as such committee, Drs. Wister, of Pennsylvania, Bemiss, of Kentucky, and Gibbs, of South Carolina.

Dr. Felix Robertson, the oldest physician in Tennessee, being present, was invited to a seat on the platform. He was greeted with marked consideration by the Association.

The calling of Special Committees was resumed:

Spontaneous Umbilical Hæmorrhage, etc.—Dr. J. Foster Jenkins, New York. Further time asked. Referred.

Use of Instruments in Obstetrical Practice.—Dr. Henry Carpenter, of Pennsylvania. No report.

Measures to be adopted to Remedy the Evils existing in the present mode of holding Coroner's Inquests.—Dr. Alexander J. Semmes, District of Columbia. Report presented, with the following resolution attached:

Resolved, That committees of three, in each State, Territory, and the District of Columbia, be appointed, and that said committee be, and they are hereby authorized in the name of this Association, to memorialize their respective Legislatures, to pass such laws as will best carry into effect the objects of the foregoing report.

The report was referred to the Committee on Publications, and

the accompanying report adopted and referred to the Committee on Nominations.

True Position and Value of Operative Surgery, etc.—Dr. J. B. Flint, of Kentucky. Further time asked. Granted.

Causes and Cure of Indigestion, etc.—Dr. G. Volney Dorsey, Ohio. No report.

Medical Jurisprudence of Insanity, etc.—Dr. C. B. Coventry, New York. Further time granted.

Human, Animal, and Vegetable Parasites.—Dr. Joseph Leidy, Pennsylvania. No report.

Value of strict attention to position in Treatment of Diseases of the Abdomen.—Dr. M. D. Darnall, Indiana. No report.

Milk Sickness.—Dr. George Sutton, Indiana. No report.

Blending and Conversion of the Types of Fever.—Dr. Clark G. Pease, Wisconsin. Communication sent, but not received. Postponed.

Best Substitutes of Cinchona, etc.—Dr. B. S. Woodworth, Indiana. No report.

Use of Cinchona in Malarious Diseases.—Dr. Franklin Hinkle, Pennsylvania. Report furnished. Referred to Committee on Publication.

Laws Governing the Absorption and Deposit of Bone.—Dr. John Neill, Pennsylvania. No report.

Intimate Effects of Certain Toxicological Agents in the Animal Tissues and Fluids.—Dr. John W. Green, New York. No report.

Intimate Structure and Pathology of the Kidney.—Dr. Charles E. Isaacs, New York. Further time granted.

Diseases Incident to Emigrants, etc.—Dr. Israel Moses, New York. No report.

Etiology and Pathology of Epidemic Cholera.—Dr. T. W. Gordon, Ohio. Partial report presented and referred.

Excretions as an Index to the Changes going on in the System.—Dr. H. A. Johnson, Illinois. No report.

Remedial Effects of Chloroform.—Dr. D. D. Thompson, Kentucky. No report.

Best Method of Causing an Increase in the number of Essays, etc.—Committee: Drs. Leidy, Wood, and Meigs, Pennsylvania. No report. Committee continued.

Changes produced in Composition and Properties of Milk, etc.—Dr. N. S. Davis, Illinois. Communication read and further time granted.

Stomatitis Materna.—Dr. McGugin, Iowa. Further time granted.

An abstract of the report of Dr. Fenner, of Louisiana, upon the Medical Topography of that State, was then read and referred.

Dr. Singleton, of Kentucky, offered the following resolution, which was unanimously adopted:

Resolved, That in the death of Dr. Grafton, of Mississippi, the American Medical Association has lost a talented and useful member, and society a benefactor.

On motion of Dr. Whitaker, of Tennessee, Dr. H. Ronalds was

expelled from the Association for giving certificate contrary to the rules of the Association.

Dr. Caspar Wister, chairman of the committee upon the admission of the delegates from Oglethorpe Medical College, reported as follows:

Dr. W. Benson asserts that for the past session the Oglethorpe school has been fully organized, that six professorships have been regularly filled, and that the occupants of these chairs have been in the constant fulfilment of their duties, except in cases of illness; such instances having, however, at no time interrupted the regular course of lectures, the professor absent having had his place supplied by his colleagues. The seventh chair is admitted to have been vacant; the duties were discharged, however, by other members of the faculty.

Dr. R. D. Arnold prefers no charges beyond those admitted above.

Therefore, your committee finding nothing that infringes upon the strict letter of the law of the American Medical Association, in reference to the admission of members, we recommend that all further action in this question be suspended.

CASPAR WISTER,
R. W. GIBBES,
A. M. BEMISS.

The Secretary read the following preamble and resolutions, which were unanimously adopted:

WHEREAS, It has pleased God to remove by death our fellow-member, Robert M. Porter, and because of his devotion to the interests of the Profession of Medicine, and his steady support of the American Medical Association,

Resolved, That this Association learned with unfeigned sorrow of his decease; and that they have lost a firm and intelligent supporter, and society a benefactor and friend.

Dr. T. Bullard, of Indiana, offered the following:

Resolved, That in the death of Dr. John L. Mothersett, this Association has lost a useful member, and society a benefactor.

The Secretary read a communication from the Connecticut Medical Society, asking that the time for holding the meetings of the Association in Northern cities be changed to a later period in the year. Referred over to the next meeting by the Constitution. Adjourned.

Third Day, May 7. The Association met pursuant to adjournment. The minutes of yesterday were read and adopted.

Dr. Hoyte, from the Committee of Arrangements, read the names of additional delegates to the Association, who had arrived since the meeting of the Association yesterday.

The Secretary read a communication from Dr. Clark G. Pease, of Wisconsin, which accompanied his report on "*Blending and Conversion of the Types of Fever.*"

Dr. Hooker, of Connecticut, moved that the report be referred to the Committee on Voluntary Contributions.

Dr. McKinley moved to amend by having a portion of the report read, which was lost, and the motion recurring to refer the report, it was carried.

Dr. Currey, from the Committee on Voluntary Contributions, submitted the following report, which was accepted :

The Committee on Voluntary Contributions has examined the following papers, and recommend them for publication in the Transactions of the Association :

1st. A new Principle of Diagnosis in Dislocations of the Shoulder Joint. By L. A. Dugas, M.D., Professor of Surgery in the Medical College of Georgia, Augusta ; accompanied by four photographic plates illustrating the principle.

2d. Medical Statistics of Washington Territory. By George Suckley, M.D., U. S. A., embracing, 1st, Geological Divisions of the Territory ; its Geology, Meteorology, Fauna. 2d, White population, and its diseases. 3d, Native population ; Diseases ; Medical Practice ; causes of their rapid disappearance ; concluding remarks.

3d. Medical Flora of Washington and Oregon Territories. By J. G. Cooper, M.D.

All of which is respectfully submitted.

R. O. CURREY,
R. T. EVANS,
GEO. R. GRANT.

Dr. Yandell offered the following resolution :

Resolved, That this Association reaffirm the principles respecting the rights of constituent bodies announced in a report contained in Volume V, of its Transactions, in the following terms :

"The Faculty of every Medical College, shall have the privilege of sending two delegates to this Association, *provided*, that the said Faculty contain not less than six Professors, who give one course of instruction annually, of not less than six weeks, on Anatomy, Materia Medica, Theory and Practice of Medicine and of Surgery, Midwifery, and Chemistry ; and also that said Faculty requires that its candidates for graduation, among other requisites, shall have attended two full courses of lectures, with an interval of not less than six months between them, one of which courses must have been in their Institution."

Dr. Breckinridge in the Chair.

Dr. Buchanan proceeded to discuss the resolution, and at the close of his remarks, moved to lay it on the table, which was subsequently withdrawn.

Dr. Boring offered the following resolutions in lieu, which he proceeded to discuss :

Resolved, That this Association has not the power to control the subject of Medical Education.

Resolved, That the great objects of this Association are the advancement of Medical Science, and the promotion of harmony in the profession.

Resolved, That the attempt upon the part of this body to regulate Medical Education, having most signally failed in its object, and already introduced elements of discord, any further interference with this subject would not only be useless, but calculated to disturb and distract the deliberations of this Association.

Dr. Currey offered the following resolutions in lieu of the whole :

Whereas, The subject of Medical Education has been committed at each annual Session to Standing Committees, and various suggestions have been proposed, which the Association has adopted, and recommended to private instructors and to the Medical Colleges,

Resolved, That a Committee of five be appointed by the Committee on Nominations, as a Special Committee, to be composed of members who are in no respect connected with any Medical School, to devise a *System of Medical Instruction*, to be presented for the consideration of this Association at its annual Session in 1858.

Resolved, That the proposed system shall set forth a uniform basis, upon which our Medical Institutions shall be organized, as well as have reference to the best mode of securing the Preparatory Medical Instruction to the Student, and that consequently the legitimate subjects to be embraced in said system, will include Primary Medical Schools—the number of Professorships in Medical Colleges, the length and number of terms during the year, the requisite qualifications for graduation, and such other subjects of a general character as to give uniformity to our Medical system, and preserve harmony and friendly intercourse in the ranks of the profession.

Resolved, That, upon the adoption of the proposed system by the Association, all Institutions which may conform to it shall be entitled to representation at the Annual Sessions of this Association, and none others.

The subject was further discussed by several members of the Association.

Dr. Reese, after some remarks, moved the indefinite postponement of the whole subject ; which was lost.

Dr. Arnold moved the previous question, which was lost, and the discussion proceeded at considerable length, when

Dr. Hooker moved the previous question on the resolutions of Dr. Currey.

The reading of the various resolutions being called for, they were read to the Association.

The motion of Dr. Hooker being in order, the previous question was called, and the resolutions of Dr. Currey were adopted.

Dr. Lindsley, from the Nominating Committee, submitted the following report :—

Secretaries.—Robert C. Foster, of Tennessee, A. J. Semmes of Washington City.

Treasurer.—Caspar Wister, of Philadelphia.

For the next place of meeting, Washington City.

Standing Committees.—*Committee of Publication.*—Francis G.

Smith, of Philadelphia, Chairman; Caspar Wister, of Philadelphia; R. C. Foster, of Nashville; A. J. Semmes, of Washington City; Samuel L. Hollingsworth, of Philadelphia; Samuel Lewis, of Pennsylvania; H. F. Askew, of Delaware.

Committee on Prize Essays.—Grafton Tyler, of Georgetown, D. C., Chairman; J. C. Hall, of the District of Columbia; J. F. May, of the District of Columbia; Thomas Miller, of the District of Columbia; A. J. Semmes, of the District of Columbia; Joshua Riley, of the District of Columbia; and W. J. C. Duhamel, of the District of Columbia.

Committee of Arrangements.—Harvey Lindsley, Chairman, W. J. C. Duhamel, Cornelius Boyle, P. H. Coolidge, G. M. Dove, A. Y. P. Garnett, Wm. P. Johnston, of the District of Columbia.

Committee on Medical Education.—G. W. Norris, of Philadelphia, Chairman; A. H. Luce, of Illinois; E. R. Henderson, of South Carolina; G. R. Grant, of Tennessee; T. S. Powell, of Georgia.

Committee on Medical Literature.—A. B. Palmer, of Detroit, Chairman; A. F. Alexander, of Alabama; J. M. Mosgrove, of Ohio; P. Cassidy, of Pennsylvania; S. Pollak, of Missouri.

Vacancies in Committee on Medical Topography and Epidemics.—T. B. Shuford, to fill the vacancy caused by the death of Dr. Grafton, of Mississippi. C. W. Parsons, to fill the vacancy caused by the resignation of Joseph Mauran, of Rhode Island.

SPECIAL COMMITTEES.—*Spontaneous Umbilical Hæmorrhage of the newly born.*—J. Foster Jenkins, of New York.

Influence of Marriages of Consanguinity upon Offspring.—Dr. Bemiss, of Kentucky.

Functions of Different portions of the Cerebellum.—E. Andrews, of Illinois.

Causes of the impulse of the Heart and the agencies which influence it in health and disease.—J. W. Corson, of New York City.

Treatment of the Results of Obstructed Labor.—J. Marion Sims, of New York.

Treatment best adapted to each variety of cataract, with the method of operation, place of election, time, age, etc.—Mark Stephenson, of New York.

Human, Animal, and Vegetable Parasites.—Joseph Leidy, of Philadelphia.

Best Substitutes for Cinchona and its preparation in the treatment of Intermittent Fever, etc.—B. S. Woodward, of Indiana.

Intimate structure and pathology of the Kidney.—Charles E. Isaacs, of New York.

Etiology and Pathology of Epidemic Cholera.—T. W. Gordon, of Ohio.

Inflammation of Cervix Uteri.—Henry H. Miller, of Louisville, Kentucky.

On Milk Sickness.—W. H. Byford, of Indiana.

Best means of causing an increase of the number of Essays.—Drs. Leidy, Wood, and Meigs, of Pennsylvania.

Changes produced in Composition and Properties of Milk.—N. S. Davis, of Illinois.

Stomatitis Materna.—D. C. McGugin, of Iowa.

On Criminal Abortion, with a view to its general suppression.—H. N. Storer, of Boston.

The Committee recommend that the Committees ordered by the adoption of the resolutions accompanying Dr. A. J Semmes' report, be filled by the several State Societies.

On motion of Dr. Brodie, amended so as to refer the same to the officers of several State Societies. Carried.

The Committee also recommend the amendment of the third article of the Constitution, in relation to meetings, by inserting after the words "first Tuesday in May," the words, *or the first Tuesday in June*, and also by inserting after the words "shall be determined," the words, *with the time of meeting.*

Special Committee on the present state of science, as regards the Pathology and Therapeutics of the Reproductive Organs of the Female.—B. Fordyce Barker, of New York.

On Moral Insanity.—D. M. Reese, of New York.

On Calculi and the Diseases of the Urinary Organs, in Iowa, Minnesota, and Nebraska.—Dr. J. C. Hughes, of Keokuk, Iowa.

On the nature, tendency, and general treatment of Syphilitic Bubo.—Moses Gunn, of Detroit, Michigan.

Organic Chemistry—its progress and relations to Physiology and Pathology.—Professor Samuel St. John, of New York.

On Medical Education.—(By Dr. Currey's resolution,) James R. Wood, of New York; Geo. R. Grant, of Memphis, Tennessee; John Watson, of New York; C. B. Nottingham, of Macon, Georgia; Rene La Roche, of Philadelphia, Pennsylvania.

To fill a vacancy in the Committee on Medical Topography and Epidemics.—Dr. J. L. Cabell, of Charlottsville, Virginia.

Dr. March moved that the Report of the Nominating Committee be taken up, and each subject to which it refers, be considered separately, which motion prevailed. That portion relating to nominations was then adopted.

The place of the next annual meeting of the Association being the next subject in order, after some discussion, on motion of Dr. March, the report of the Committee was adopted.

Dr. Lindsley moved that, as Dr. Semmes, one of the newly elected Secretaries was absent, Dr. Brodie, of Michigan, be elected Secretary *pro tem*, which was carried.

Dr. Pitcher offered the following resolution, which was unanimously adopted:—

Resolved, That a Committee of three be appointed, of which the President of the Association shall be Chairman, to communicate with the Surgeon General of the Army, the chief of the Medical Bureau of the Navy, and the Secretary of the Treasury of the United States, with a view to secure the concurrence of the departments of the Federal Government, so that its contributions to the

Medical Topography, the Vital Statistics, and the Sanitary Police of the nation may be made tributary to the labors of this Association.

The Chair appointed as such Committee, Dr. Z. Pitcher, of Michigan, and R. H. Coolidge, of Kansas.

Dr. Bowling, Chairman of the Committee on Prize Essays, submitted the report of said Committee, as follows :—

The Committee on Prize Essays report that four essays have been received, each possessing great merit.

The Committee selected the following two Essays for the two prizes, provided for at the last meeting of this Association.

1st. One entitled "The Excreto-Secretory System of Nerves. Its relation to Physiology and Pathology," with the following motto :—

"*Observation becomes Experiment when used in severe processes of Induction,*" and signed Henry Fraser Campbell, Georgia.

2d. "Experimental researches relative to the Nutrition, Value and Physiological Effects of Albumen, Starch, and Gum, when singly and exclusively used as Food," with the following motto :—

"*Qum sequimur ? quove in jubes ? ubi ponere sedis ?*
Da pater augurium, atque animis illabere nostris !"

and signed William A. Hammond, M.D., Assistant Surgeon, U. S. Army.

The President read an invitation to the members of the Association, to visit the University of Nashville, in its Military, Literary, and Medical Departments.

The Committee on Voluntary Contributions, reported in favor of the publication in the Transactions of the Association, of the following paper : "On the blending and conversion of Types in Fever." By C. S. Pease, M.D., of Wisconsin. The report was adopted.

Dr. McMurray offered the following resolution, which was adopted :—

Resolved, By this Association, that the Committee on Publications be instructed to append the Code of Ethics of the American Medical Association to each volume of its present and future Annual Transactions.

The amendments to the Constitution proposed by Dr. Stocker, of Pennsylvania, at the last Annual Session, were taken up and laid on the table.

Dr. Lindsley offered the following amendment to the Constitution, which was seconded by Dr Gunn :—

"In Article II. omit the words 'Medical Colleges,' and also the words 'The Faculty of every regular constituted Medical College, or chartered School of Medicine, shall have the privilege of sending two delegates.'"

The amendment lies over until the next meeting of the Association, under a rule of the organization.

On motion of Dr. Palmer, the resolutions reported at the last Annual meeting of the Association, by the Committees on Plans of

Organization for State and County Medical Societies, were taken up and adopted.

The following Resolutions were offered and adopted :—

By Dr. Pitcher—

Resolved, That the members of this Association, as recipients of the cordial, generous, and elegant hospitalities extended to them by the profession and the citizens of Nashville, in placing on record an expression of thanks for the social amenities they have enjoyed during its Tenth Annual Session, wish also to leave behind them the assurance, that the recollection of their short sojourn in Tennessee, will be cherished as dearly as the remembrance of the far off sound of water, by the exhausted and way-worn traveller.

By Dr. Means—

Resolved, That the earnest thanks of this body be presented to the authorities of the State and City, who have tendered this magnificent State Capitol for their sittings during the present session.

By Dr. Byford—

Resolved, That the State and County Societies throughout the Union be requested to recommend their members to purchase the Transactions of the American Medical Association, and that their officers act as agents for the same.

On motion of Dr. Gunn, of Michigan, the Association recognized the presentation of a pamphlet by Henry Fraser Campbell, M.D., claiming "Priority in the Discovery and naming of the Excito-Secretory System of Nerves."

On motion of Dr. Byford, the Association then adjourned *sine die*.

Academy of Medicine.

A special meeting of the Academy was held on the 17th of June. It having been announced that the discussion on puerperal fever would be continued, and that a paper on chloroform would be read by Dr. Squibb, of the Navy, the attendance was large. The distinguished president, Dr. Mott, was in the Chair. The paper on chloroform (which we have the pleasure of laying before our readers in full) was first read, and much gratification was expressed by the fellows for the information it contained. A unanimous vote of thanks to its author at its close was a proper compliment.

After the reading of the paper was concluded, Prof. Barker rose and observed, that he felt under great obligations to the author of the paper to which we have just listened, and he was sure that such was the feeling of every member of the Academy present. It was a most valuable contribution to our knowledge of a very important subject. It will be conceded by all that chloroform is greatly preferable to all the known anæsthetic agents, provided it can be estab-

lished that it is equally safe, when perfectly pure and properly administered. From a very extensive experience in its use, he has long been convinced of its entire safety, except in some very rare idyosyncrasies, provided these two conditions were fulfilled, viz: purity of the article and its proper administration. For nine years he had been in the habit of using it very generally in his obstetric practice. In some cases, the patients had been kept under its influence for many successive hours, without any subsequent ill effects, even the slighter ones, such as headache, sickness of the stomach, etc. One patient was kept continuously under its influence for twenty-six hours, and not the slightest unpleasant result followed. Her condition was such, that during this time he did not dare to suspend its use, for when she was permitted to partially come out from under its influence, symptoms appeared indicating imminent danger of convulsions. He has used the chloroform repeatedly in cases of convulsions both puerperal and infantile. He has also often administered it, for his surgical friends, in severe operations, but always, for obvious reasons, with a reluctance which he did not feel at all in his obstetric practice. Within the last few years, he has many times brought the patient completely under its influence in order to make a necessary physical exploration, where it could not be accomplished otherwise on account of the attendant pain and suffering. In two cases he had seen the patient come near dying, where the chloroform was used, but in both instances, he thought the result was due to the *mode* of *administration*, rather than to the chloroform. Several thicknesses of napkin were saturated with the chloroform and pressed tightly upon the nose and face, and retained there until the appearance of the patient gave a most significant warning for its removal. If simple water had been used in this way instead of chloroform, the patient could hardly have escaped asphyxia.

He has long felt that the importance of a pure article could not be too strongly insisted upon. In 1849, he received from Edinburgh some bottles of the chloroform made by Duncan and Flockhardt, of that city, and since that time he has used no other except in some few instances, when he was out of the article, and in two or three instances at Bellevue Hospital. He had always maintained that the article was essentially different from that which was obtained here, of either the American or the French manufacture. He thought that he was always able to detect the difference, even from the odor alone. As was before remarked, he never had seen

any unpleasant effects follow its use in *obstetric practice*, and he must add that in the few cases in which he had seen nausea, headache, nervous palpitation of the heart, &c., follow its use, it was not Duncan's and Flockhardt's chloroform which had been used. He had endeavored to persuade some of our druggists to import it from Edinburgh, but after consultation with other physicians they had been led to believe that it would be useless and unsaleable because the American chloroform was just as good. He therefore had been compelled to import it himself for his own use. It is cheap, quite as cheap as the American, and a good deal cheaper than the French chloroform, costing in Edinburgh five shillings sterling per pound. About a year since, he had the pleasure of visiting the Naval Hospital, of Brooklyn, in company with Prof. Bowling, of Nashville. The laboratory, under the charge of Dr. Squibb, was to him full of interest, and he was convinced that our navy now had greatly the advantage of the rest of the community, inasmuch as they were supplied with *pure medicinal agents*. He there saw specimens of chloroform which he could not distinguish from the Edinburgh chloroform. He was certain that it was pure chloroform. But unfortunately this chloroform could not be obtained for the profession at large. He had yet to hear of a single case of a fatal result from the use of this chloroform in the navy, and he believed that the singular exemptions from fatal results in Scotland, where chloroform is most extensively and freely used, is in a great measure due to the purity of the article. He had recently visited the laboratory of Messrs. Duncan and Flockhardt, and was greatly astonished at the quantity there manufactured. He was told by one of the clerks that about two tons per week of the chloride of lime was used for this purpose.

Dr. Barker earnestly desired that the public opinion of the profession should be brought up to that point which would compel the manufacturers of chloroform to give us an article equal in purity, superior if possible, to that made in Edinburgh. He thought it unfortunate, disgraceful in fact, that we were compelled to go abroad for an article which could be so easily made at home. He concluded by moving the thanks of the Academy to Dr. Squibb for his interesting and valuable paper, and that it be referred to the Committee of Publication. The motion was amended by referring it to the Committee on Materia Medica, when it passed unanimously.

Dr. John Watson said he noticed that the author spoke of various dangerous compounds as being present in chloroform. It would be gratifying to him (Dr. Watson) if Dr. Squibb would state what they are.

Dr. Squibb, in reply, observed that they were apparently compounds of chloryl, formyl, and ethyl; but it is impossible to isolate them, for in attempting to do so they are almost sure to change. Their affinities are so weak, and their changes are so readily produced, that there is no certainty as to their precise chemical composition and relations. Of their effects, however, one could have abundant evidence, by examining the remainder after purification of the chloroform, these compounds being detained in that residue. He had tried them on animals with fatal results, and remembered particularly seeing a mouse die from the effects of some of these vapors, which, being heavier than air, flowed down upon the floor about which the mouse was playing.

The discussion of puerperal fever was then resumed.

Dr. Alonzo Clarke.—I will say a few words with regard to it, with your indulgence. It will be remembered that the pathology occupied a considerable portion of the attention of the Academy on a former occasion. I then stated that the fever was in its nature *inflammatory*. I also stated my conviction that those cases described by Gouch, Simpson, and others, as without lesion, were cases of pyæmia. That the pyæmia had its source in the inflammation of the inner surface of the uterus, and the facility with which uterine sinuses could convey the pus into the system, was shown.

Where a patient has died of puerperal fever, supposed to be without lesions, I had been able to demonstrate the existence of this pus, and I have not been able to demonstrate it in cases where patients have died of puerperal convulsions.

In addition to the views then given, I would state that when inflammatory fibrinous exudation has been found in the inner surface of the uterus without pus, pus may be the result of the same inflammation, as it extends to the terminal uterine sinuses.

In two cases, lately, I have found secondary deposits of pus in distant parts of the body, the results of the purulent contamination; and yet the secretion was not pus, but was fibrinous, on the inner surface of the uterus.

We have lately had a form of puerperal fever at Bellevue Hospital, with the pathology of which I have not before been familiar, and which I think has not been so thoroughly studied by the profession as that of other forms. Its prominent lesion is inflammation of the inner surface of the uterus with evidences of general purulent contamination; and the disease is unusually protracted. The patients have lived in several cases from ten to thirty days, and the post

mortem examinations have demonstrated the existence of secondary purulent deposits and pus on the inner surface of the uterus, and in its veins or lymphatics.

This form of the disease is more insidious in its approach, is often devoid of the symptoms that mark the onset of the ordinary attacks of puerperal fever, and is more allied to typhoid fever.

I can best illustrate this by giving the history of a case, drawn up for me by Dr. McEwen of the Hospital corps. (The case was given with great minuteness of detail as to the symptoms and treatment. We have room for an abstract merely.) The patient, aged twenty-seven years, was delivered April 26th, at Bellevue Hospital, of a living child, after a labor of an hour and a half. She complained of nothing until May 1st, when she had a slight diarrhœa, and shooting-neuralgic pains in the left supra and infra orbital nerves. The diarrhœa continued moderately until the 11th of May. On the 5th she experienced slight chilly sensations, and the chills were of daily occurrence during the remainder of the disease. The lochial discharge ceased May 9th. Perspirations were a prominent symptom from May 10th until her death. There was but slight tympanitis during the disease, and no abdominal tenderness. Deafness was one of the earliest symptoms noted, and this continued throughout the disease. Delirium was first noted on the 12th. The pulse varied in frequency from 80 to 120 until May 12th. It afterwards became more frequent. She died on the evening of May 16th. The principal autopsic lesions were *in the intestines*, the solitary glands were enlarged and distinct. In the *uterus* the blood was fluid or imperfectly coagulated in all the large vessels. On removing its connections with the left side of the pelvis, pus flowed in considerable quantities. Pus, apparently, infiltrated into the tissue anterior to the neck of the bladder and behind the symphisis pubis. Several vessels, either lymphatic or venous, in the substance of the organ contained some purulent fluid. Three or four small abscesses in broad ligament of the left side. Inner surface covered by a somewhat flocculent fibrinous exudation, stained of a deep brown, almost black color by a fluid of creamy consistence, and of the same hue which covered the whole inner surface. The fallopian tubes contained pus and were very red. Ovaries nothing noticeable.

Here is a case in which all the symptoms on which reliance usually is placed in the diagnosis of puerperal fever were absent at the commencement—no chill, no headache, no pain in the abdomen, no rapid rise in the pulse. In fine, there was no well-marked period of inva-

sion, such as we have been taught to expect in that disease. The first symptom that is noticed is the diarrhœa, and that occurred on the fourth day. In ordinary peritonitis the bowels are constipated, but in this class of cases the bowels either were loose or easily moved by medicines. The whole disease is marked by its *gradual* progress; the characteristic point is the recurrence of the chill, and the long perspiration that followed the chill, or of free perspirations without chills. So regular was this in the case just read, that I expected, and almost invariably found, my patient in a perspiration when I made my daily visit.

I wish to call particular attention to the condition of the solitary glands of the intestines. They were swollen, filled with a milky fluid apparently, and stood out on the surface of the mucous membrane in certain parts, like pustules, as they often do in small pox or cholera. I have been induced lately to attach importance to this lesion and its connections with pyæmia, having met with it frequently during the epidemic here described; and in some cases of purulent infection unconnected with the puerperal state. Dr. Heywood will recollect such a case, one that we examined together a few days ago. The Peyerian patches also participate in the diseased action in some of the cases. Thus the analogies of this case all ally it to common purulent phlebitis; such it undoubtedly would have been considered had it occurred in any other than the puerperal state, or even in this state, perhaps, if it had occurred alone. But its associations are no less important than the disease itself. It occurred at the end of a series of eleven cases, four of which had the peritoneal inflammatory lesions, and six appeared to suffer mainly from uterine phlebitis and pyæmia. Nine of the other ten cases all occurred between the 2d and the 12th of April. Dr. Clark then gave a summary of the tabulated symptoms in nine cases of puerperal fever, where there was peritonitis, and in five cases without peritonitis. All of these cases were fatal, and autopsies were had; so there could be no doubt as to the existence or non-existence of peritonitis. The result of this tabulated view of the symptoms, Prof. Clark remarked, did not give that clear distinction which he had hoped to have found even in that form of puerperal fever which is attended with peritonitis.

Dr. B. F. Barker did not rise at this late hour to occupy the time of the Academy, but to express the hope that the discussion may be continued another evening. The subject is one of great importance to every obstetrician, and in this country every practitioner is an obstetrician. The subject, as announced in the notice, is, "the

contagiousness and treatment of puerperal fever," and the whole point of the discussion must turn on its pathology ; for if it is merely a local phlegmasia, it cannot be contagious, and its treatment will hardly admit of discussion. What is its essential character? Is it a local phlegmasia, or is it a zymotic disease? He had the pleasure of being present the first evening of the discussion, but being necessarily absent the second evening, he had read, with great care, the remarks of Dr. Clark, as reported. He had also been deeply interested this evening, and felt greatly indebted to Dr. Clark for his researches and contributions to the morbid anatomy of the disease in question. But has this disease an anatomical character? According to Dr. Clark it has: consisting of four primary lesions—inflammation of the peritoneum, inflammation of the veins of the body of the uterus, inflammation of the lymphatics of the uterus, and inflammation of the inner surface of the uterus or endo-metritis, which he considers to be in fact a limited phlebitis. With all due respect he was compelled to differ with him on this point. He had been accustomed to regard these lesions as bearing the relation of an effect instead of a cause. He had believed that there was no proportionate relation between the intensity of the symptoms and the amount of the local lesion. He had regarded puerperal fever as a disease having a distinct essential character, but as having associated with it, most generally, lesions of the peritoneum, or of the veins of the uterus, &c. ; but he had also believed that we may have peritonitis or phlebitis, or any other of the local inflammations, even in the puerperal woman, and not have puerperal fever. For example : we meet with phlebitis in the parturient woman in three forms,—the adhesive inflammation, as in the disease known as phlegmasia alba dolens; the circumscribed puriform inflammation, in which little abscesses are found in the substance of the uterus ; and the diffuse puriform inflammation, constituting pyæmia. The very interesting case which Dr. Clark has so minutely detailed, seemed to him to be one of pyæmia, rather than a case of peurperal fever. Dr. Barker had no desire to bring his personal views before the Academy, but he thought the subject ought to be discussed most fully, and he therefore moved that the discussion be continued at the next meeting of the Academy. The motion was immediately passed *nem con.*

SELECTIONS.

On Paracentesis Thoracis.

Messrs. Editors:—A few weeks since, you asked for contributions from physicians in the city. I send you a copy of part of a letter to a young friend in Vienna, who had written to obtain my articles on Paracentesis Thoracis, published in the *American Journal of Medical Sciences* (April, 1852), and in the *Medical Monthly* (January, 1854). This letter may be considered as a continuation of the same subject. It may be asked—why say anything more upon the subject? I have two reasons; viz: 1st, the fact that some of the best men of the profession still doubt the advantage of the operation, and, at times, allow patients to die unrelieved. An eminent surgeon at the West informs me that he permitted one of his own patients to expire from a large pleuritic effusion, because he thought thoracentesis would give only temporary relief. 2d, the following cases are peculiarly interesting, and more important than those previously published.

Yours truly, HENRY I. BOWDITCH.

Boston, May 25th, 1857.

Dear W.— . . . Since my last article on Thoracentesis, I have been more confirmed than ever in my belief of the importance of this operation as a remedial measure, to be used *not as a last resource*, but like any other simple remedy, if necessary, at any period of the disease. I still use the exploring trocar, although, in some instances, where there has been a tendency to a reäccumulation of fluid, I have used a larger instrument.

Since that article (October, 1853), I have operated on thirty-seven persons, and have punctured sixty-one times, either with relief or great relief, in all but one. This person was very intemperate in her habits, and was stupid with liquor when I operated; but the dyspnœa was so very great as to threaten immediate death. She was relieved, temporarily; but sank about twenty-four hours after the operation. With this exception, in not a single instance was there any untoward result. I cannot forbear giving some details of a few of the more interesting cases.

I.—I took seventy-eight ounces from a thin, nervous woman, who had been ill for six weeks, and who was gradually growing worse. Great relief followed immediately, and afterward there was a steady course toward perfect health.

II.—A lady, four and a half months advanced in pregnancy, had been ill for two weeks. When I saw her, July 26th, 1854, she was threatened with immediate dissolution. Her countenance was distressed and haggard; there was extreme orthopnœa, and the wrists were nearly pulseless; the lips were livid; the skin cold and clammy. A brief examination showed the left side of the chest full of fluid. Eight ounces of pus were all that could be removed. The immediately serious symptoms were, however, relieved. Between this date and September 5th, I operated three times, *i. e.*, whenever the symp-

toms became again severe. On September 5th, I used a large trocar, and left it *in situ*. In a few days, it was forced out by the expansion of the lung, and could not be reinserted. The opening healed in spite of my endeavors to keep it open. On September 20th, October 5th, and November 22d, punctures were again made for the relief of symptons, which, however, never were so bad as before the first operation. On the last occasion, the large trocar was again used, and liq. iodinii compos. injected. Subsequently this fluid was injected several times. December 8th, an abscess formed below the point of puncture. This was opened with a lancet, and all discharge soon ceased through the canula. November 17th, she was delivered of a living child, which, however, was puny, and died in a few weeks. January 15th, 1855, a tumor appeared between the second and third ribs in front, and, when I saw it, projected an inch from the surface and was soft and fluctuating. It was evidently the pus from the pleura, preparing to form another opening—the fistula below, discharging but little. I declined puncturing it, but made a final, counter and permanent opening low down at the left side. January 31, she had acute pain and a rubbing sound, evidently from acute pleurisy of the *other side*. Of this, however, she was relieved in a week. From this period she went steadily onward toward health. February 16th, she was gaining flesh, and in March she resumed her household duties. She is now, May, 1857, in perfect health. There is scarcely any contraction of the side, although the respiratory murmur is less in the left than in the right chest. Eight years ago, I think, she would have been allowed to die.

III.—A physician, aged 60, had been ill for a few months, and had grown worse during a few weeks preceding my being called in consultation. He dreaded the operation, from his professional fear of it, and it was delayed. Finally, feeling that he was growing weaker, he consented to allow the puncture. One hundred ounces (!) of clear serum were removed, and with entire relief. No return of the fluid. The lung expanded in a few days, and in a few months he had his usual health, which is now perfect.

IV.—I saw (December 11, 1855,) a seaman, aged 73, with chronic cardiac disease, general dropsy of the chest, abdomen and extremities. He had had, for several weeks, permanent orthopnœa, and seemed gradually sinking. The right side of the chest was full of fluid. The operation of thoracentesis was suggested as a means of temporary relief. Ninety-one ounces (!) of serum were removed. No return of the fluid. The lung, in a few days, was fully expanded. The general dropsy disappeared, and with it all the severe symptoms, except the usual dyspnœa attendant on chronic cardiac disease in the aged. He lived in comparative ease for a year, and then died, suddenly, of his heart complaint.

V.—I saw an Irishwoman with Dr. Buckingham. She had been ill three months, and was unable to attend to her household duties. The sole disease was an effusion into the chest. Dr. Buckingham punctured and removed sixteen ounces of serum. No return of the

fluid ; vast relief to every symptom ensued. In a week she felt well enough to resume her daily work, and the lung was fully expanded.

VI.—April 2d, 1856, I saw, in consultation, a girl aged 6 years, who had been ill six weeks, and at the time of my visit was considered nearly moribund. I have no doubt she would have died if thoracentesis had not been performed. She had intense orthopnœa, great distress of the countenance and lividity of the lips, nails, &c. ; cold extremities, with a rapid, feeble pulse. There was flatness on percussion over both backs, which on the left side extended to the apex. At the right there was an obscure crepitation. At the left there was no râle, and very obscure respiration. I punctured the left back, and could remove only four ounces of pure pus. Much relief, however, followed, and continued until the 7th (five days), by which time she was as badly off as before, and I again saw her. The attending physician had little hope of relief. I could scarcely have any, because of the complex and extensive character of the complaint on both sides. Nevertheless, I was unwilling to give up, without further effort. I determined to use a rather larger trocar (having previously, in all the operations cited in this paper, except the second case, used the exploring trocar and suction pump) and leave it in the wound. Several ounces of pus *gushed* out, and with the same relief as before ; but, unfortunately, in four or five days, the instrument was pushed out by the expanding lung. The opening soon closed, in spite of all endeavors on the part of the attending physician to prevent it, by probing, &c. On the 23d of the same month (16 days) a new operation was needed, owing to a return of all the above-described symptoms.

In consequence of the illness of the medical attendant, I subsequently took charge of the patient. At first, I used a common-sized trocar, and removed several ounces of pus. In about 48 hours I withdrew the instrument and introduced a shorter one. This was afterward changed for one that passed merely between the ribs, and projected but very slightly into the thorax. I could not prevent air from entering each time the wound was dressed. I used no injection, but administered to the patient *fusel oil*, two drops, three times daily, and ordered a nutritious diet. Very gradually, the lung expanded, but the tube remained in the opening until June 30th (68 days), when it was finally removed, there having been no discharge for four days. The respiratory murmur was then heard down to the point of puncture. The congestion, or chronic pneumonia of the right lower lobe, continued for weeks afterward. The improvement, however, in the rational signs was steady from the moment of the last operation. The patient is now, May, 1857, in perfect health, and no difference in form or respiratory murmur is perceptible between the two sides of the chest. She is without a single sign, either rational or physical, of the former disease, except the slight cicatrix at the point where I operated. I have no doubt whatever that *thoracentesis* saved her life.

VII.—About the same time that I was attending the preceding patient, I was called to another, a girl, aged 11 years. She was suf-

fering with great and constant dyspnœa, with accesses of severe orthopnœa, which threatened suffocation. The attack of pleurisy was recent, and the right side was evidently full of fluid. May 16th, I drew off thirty-two ounces of pus. Great relief ensued; but, on June 1st (14 days), she had a return of the suffocative accesses, and there were signs of a reäccumulation. I punctured near the point at which I had operated previously. There was complete dulness on percussion, and only a very distant sound of respiration was heard there. But I evidently punctured the lung, as nothing but a drop of blood followed the withdrawal of the trocar. Fully convinced, by the result, of the exact state of the parts, I immediately decided to operate in another place, in front, where the flatness was as great and less respiratory murmur was heard. I accordingly instantly withdrew the instrument and inserted it in front, and an inch higher up. *Eight ounces* of pus, of honey-like consistence, were withdrawn. From that moment, all serious symptoms disappeared. Fusel oil was used, with nutritious diet; and perfect health, with greater robustness than she had exhibited previously to her illness, were the results.

In this case, I presume that adhesions had formed behind, and the thick membranes, with a want of expansion of the superficial vesicles of the lung, caused the dulness on percussion, and the almost total absence of respiration.

VIII.—This case was similar to Case IV.; viz: an old man, with cardiac disease and effusion consequent thereupon. Orthopnœa and symptoms of approaching dissolution were wholly removed by a puncture and the withdrawal of *thirty-six ounces* of serum. The patient died, several weeks afterward, of his heart affection. Here the operation was undertaken solely for the relief of urgent symptoms.

IX.—A man was many years ill, and supposed to be phthisical. I was called in consultation upon him, suffering from an acute attack of pleurisy, with an effusion of three weeks' duration. At my visit he was preparing his will. He had had some very severe paroxysms of dyspnœa, in which all his attendants, together with his physician, thought him dying. I removed *sixty-four ounces* of serum with complete relief. The lung expanded within twenty-four hours, and in three weeks he was out of doors and in full business. He continues still in his previous health, *i. e.*, probably phthisical, but able to attend to all the duties incumbent on him as the head of a large business house.

I have thus given you the more interesting of my recent cases. The notes are very brief. The records I have of them are ample. In a word, since April 17th, 1850, I have operated upon sixty-two individuals, of both sexes and all ages. I have punctured one hundred and eleven times. I know of nothing in practical medicine which has afforded me more satisfaction than this simple operation. I use designedly the expression—practical *medicine*, in contra-distinction to surgery. The perfect simplicity of the operation, to one satisfied of the correctness of his diagnosis, allies it to venesection or vaccination. I am well aware that many will wonder, and some

perhaps will scoff at this classification. To such I would say—Do not theorize on your fears—*try the operation*, and then you can judge more clearly. You will find that, as performed in these cases (viz: with the exploring trocar), it is, 1st, as a general rule, less painful than a blister; 2d, that (if I may judge from my cases) it *never* does harm; 3d, when fluid is obtained, it *always* gives relief, either temporary or permament; 4th, that very often it is the chief, if not the sole means capable of relieving severe symptoms, and even of saving life.

If these statements are true—and I am as convinced of their truth as I am of anything in my whole medical experience—I am justified in asserting, that a physician does wrong and acts foolishly who allows any patient to suffer months or years of misery, or even death itself, from pleuritic effusion, at any age—from any cause and with any complications—without at least *a trial of thoracentesis*. I write thus strongly because I fear that surgeons, of even the highest reputation, still shrink from performing this operation. This fear, I presume, is owing to their considering it as similar to the operation laid down in all, or almost all, of their own manuals. From that operation they ought in most cases to shrink. That which is here advocated is of a totally different character, and is, so far as my experience goes, harmless.—*Medical and Surgical Journal, Boston.*

Excision of the Elbow-Joint.—We had the opportunity, on the 16th inst., of again seeing resection of the elbow performed by Mr. Fergusson, at King's College Hospital, on a healthy looking female, aged about twenty-seven years. The important and interesting peculiarity in this case was the early performance of operative measures for so comparatively recent an attack of disease. The disease of the joint has been only of six months' duration, with a fistulous opening at its outer side. A longitudinal incision was made, and about two inches of the ulna, the head of the radius, and lower part of the condyles of the humerus were removed, together with any surrounding affected matter. Amylene was given here by Dr. Snow.

In some remarks upon the case, Mr. Fergusson referred to several features of interest in this case, especially, such as resection when the disease was of so short a duration. Usually, the surgeon performs resection or amputation as a last step, after all treatment has been tried, which sometimes may extend over many years. But in the present instance he was disposed to step from the beaten path, and attack the disease at an early period. He felt assured nothing could be done by treatment here, and thought it as well to excise the joint. When the patient was on the table, there was great mobility of the joint in every direction, indicating a lax state of the membranes associated with that condition of the synovial membrane especially which appears to be incurable. Another feature of importance here was the mobility of the olecranon upon the humerus, depending upon the degenerated articular surface and pulpy thickening of the synovial membrane itself. There is no hope of cure in

such cases, and if it should occur, it would be after the lapse of many years. No author has made any observation, Mr. Fergusson said, of the peculiar movement of the olecranon process as in this case. He attaches no particular importance to the form of incision used, but looks to the facility which may be afforded in cutting away the ends of the bones. Sometimes he uses a single line, and sometimes an H incision. The former is about the oldest used, and is, in reality, no novelty. It so happens, he further remarked, that Parke was the first who made use of a single incision, and who ought to get the credit for it, if there is any merit in it. Moreau practised the H incision. Since the operation, the case has been going on well.

The same day that the above was performed, Mr. Coote, at St. Bartholomew's, excised a diseased elbow from a soldier of the 82nd Regiment, who was compelled to leave the service in consequence. He is twenty-eight years old, and fell upon his elbow eight years ago, which was followed by inflammation of the joint, with ulceration of the cartilages and disease of the ends of the bones. Complete excision was performed by a long incision, as in Mr. Fergusson's case, and the man is going on well.—*London Lancet.*

Apparatus for Fractured Clavicle.—(Communicated for the Boston Medical and Surgical Journal.)

Messrs. Editors.—I constructed the following apparatus for the purpose of preventing, in a measure, the deformity which so frequently results from fracture of the clavicle; and trial has proved it adequate to the object designed. If you think the description here given worthy a place in your valuable journal, it is at your service.

The apparatus consists of a short crutch, the shank of which is made of two pieces of steel, so as to slide up and down, and adapt its length to the height of the individual. At the top of the shank is attached a crescent-shaped piece of wood, to be padded in the form of a wedge; and at the lower part of the shank is a small footpiece made to rest in the pocket of a broad leather belt, which is to be placed around the waist.

It is applied in the following manner: the belt is buckled around the waist, with its pocket between the anterior superior spinous process of the ilium and the *symphysis pubis;* the footpiece is then placed in the pocket of the belt, the wedge in the axilla, and the arm drawn over the wedge until the elbow touches the side, where it is confined by a roller, or by other means.

All the indications required in the treatment of this fracture are thus accomplished; the shoulder is carried upward by the length of the crutch, outward by the pad, and backward by the direction in which the upward force is exerted.

The apparatus is cheap, and advantageous on account of its permanency; when well made and properly applied, it needs no interference until the cure is effected. Yours obediently,

Albany, N. Y., April 22d, 1857. H. M. Weedon, M.D.

Length and Tortuosities of the Umbilical Cord. By JOHN S. BEALE, Esq., M.R.C.S.E., &c.

On looking over a record of midwifery cases attended by myself, I was astonished at the number of times in which the umbilical cord was found encircling the neck. In 1220 cases, it was once wound round the neck in 175, twice round in 32, and thrice round in 7 cases. In 1 case, the cord was crossed over the chest and back, and looped under both axillæ; it measured 58 inches in length. In 3 cases, there was a single knot on the cord, and on one funis were two knots. Dropsy of the cord occurred once, increasing its breadth to two inches, and rendering it very tortuous. The shortest cord was five inches in length. (In Dr. Rigby's "Midwifery" there is mention of a case in which it was but two inches long, and another in which its length was 61 inches, *vide* page 182.) I did not notice any unusual retardation of the labors in those of my cases to which I have referred, only more or less lividity of the neck and face, according to the time spent in the head passing into the world.

These cases give, as the average, about 1 in 5 in which the cord is so coiled. It seems surprising that in cases of alleged infanticide the plea of death being caused by the pressure exerted by the funis (without help) has not been seized upon to any extent by the counsel for the defence, for such a liability must tend to diminish the chances of life. These cases, however, rarely go beyond a charge of concealment being sustained.—*London Lancet.*

A Loose Body Found in the Peritoneal Cavity.—It was almond-shaped, about half an inch long, and at one extremity presented a minute projection, which was probably the remains of the pedicle by which it was originally fixed. The external surface was smooth and shining. On section, this body was found to consist of a firm semi-cartilaginous capsule, filled with yellow pulpy material containing some gritty nodules. On microscopic examination the contents were found to consist of fatty granules, and some irregular hard (mineral) masses requiring hydrochloric acid for their solution. This loose body was found in the pelvic cavity of a female subject. On examining the colon, one of the appendices epiploicæ attached to the sigmoid flexure was found much altered in structure, resembling, in fact, the body just described; and it was attached by a very small pedicle, so slender, indeed, that a very small force would doubtless soon have detached it. There could therefore be little doubt but that the body just described had resulted from a degeneration and separation of one of the appendices epiploicæ.—*Ibid.*

Specimens Illustrating the Formation of Loose Bodies in the Abdominal Cavity.—These specimens were found in a male subject, and consisted of two of the appendices epiploicæ attached to the transverse colon. They were both much altered in structure, about three-fourths of an inch in length, slightly flattened, and furnished with very slender pedicles. The one was very firm, and presented a semi-

cartilaginous consistence; the other was dark-colored, and appeared to contain blood. It was quite possible that, owing to the construction of the pedicle, a vessel had burst; and that accident might perhaps have aided the degeneration of the fatty appendix. In vol. vi. of the "Transactions of the Pathological Society" Dr. Van der Byl has described a loose body found in the peritoneal cavity, which he believed was formed in the manner he had just endeavored to prove. In connexion with this subject, Dr. Van der Byl alluded to the loose body removed from the hernial sac by Mr. Shaw; and stated that in *The Lancet* for 1850, vol. i., p. 187, there was described "a large concretion lying loosely in a hernial sac," which was exhibited at the Westminster Medical Society by Mr. Canton, and which exactly resembled that exhibited by Mr. Shaw.—*Ibid.*

Twelvemonths' Incubation of a Vaccine Pustule.—M. Blache mentioned, at a late meeting of the Medical Society of the Hospitals of Paris, that M. Despaulx Ader vaccinated in October, 1855, a young lady who was leaving for England. No result was obtained, and he had a letter from his patient more than a twelvemonth afterwards, saying that vaccine pustules had just appeared on the spot where the punctures had been made. The pustules went through their usual stages, and their nature was verified by an eminent English physi cian.—*Ibid.*

EDITORIAL AND MISCELLANEOUS.

—Quite a commotion has been produced in the London medical world, by J. Weldon Fell, M.D., who has asserted that he could remove cancerous disease without using the knife. As we understand the matter, by some *hocus-pocus* he succeeded in persuading the authorities of the Middlesex Hospital, London, to assign him certain patients to be subjected to his treatment. The *Lancet* immediately came down on the whole arrangement, as violating by its secresy the very principles of professional ethics, and deprecated the position taken by the surgeons of the institution. For this, or for some other reason, Dr. Fell has published a book on cancer and its treatment, in which he gives the formulæ which he uses, and thus pricks his own gas-bag, which must at once collapse and shrink to flatness itself. Will our readers be so kind as to pause a moment, and if absolutely necessary, take something to strengthen them before they read that Dr. Fell's remedy is——*puccoon!!*—that is to say in English, *Blood-root*, in botany *Sanguinaria Canadensis*. Hear what Dr. Fell says: "Many remedial agents were tried without producing the desired

effect, and all efforts to cure the disease were for a long time unsuccessful, and apparently hopeless *until I heard of a root used by the North American Indians on the shores of Lake Superior*, which the Indian traders told me was used by them with success in these affections. . . . . And no doubt some poor squaw, suffering from this dreadful disease, was the first who applied it, after having tried all the simple herbarium of the uneducated savage without success, and then in despair applied the bruised bloody pulp of the white flowering puccoon." This is the old dodge of "Indian doctors," which with us in America is at once understood, deceiving none but the most ignorant. In sooth, if all the wonderful remedies ascribed to the Lake Superior Indians had been discovered by them, it would be abundant evidence that they were a most industrious set of men in the study of remedies. We remember to have read of an expedition for determining the boundaries of one of our Southern States, which on emerging from the untenanted forest, found an Indian settlement, where the women used puccoon to color the areola about the nipple as an addition to their beauty. The number of similar spots on the shirt bosoms of the party the next day was noted as remarkable. Can Dr. Fell's theory have sprung from this?

Chloride of zinc is the material with which this puccoon is combined, this being the usual formula:

R.	Sanguinariæ Canadensis	℥ss. vel ℥i.
	Chlor. Zinci	℥ss. vel ℥ij.
	Aquæ	℥ij.
	Pulv. Sem. Tritic. Hibern.	q. s.

Mix and form a paste the consistence of treacle. The skin is destroyed by nitric acid, "incisions about half an inch apart are made through the eschar, avoiding the living tissues, and the paste spread upon strips of cotton inserted into them daily." "Generally in the course of two to four weeks the disease is destroyed, and the mass falls out in the course of ten or fourteen days afterwards, leaving a flat, healthy sore, which generally heals with great rapidity." In "incipient cancer" he uses an ointment composed as follows:

R.	Sulph. zinci	℥vj.
	Sangunariæ	℥ij.
	Myricæ ceriferæ	℥i.
	Extr. opii (aquos)	
	Extr. conii	aa ℥vi.
	Ungt. cetacei	℥vi.

mist. et fiat ungt.

We hope this ointment is better than the Latin of the prescription.

Beside this he uses an iodide of lead ointment, but as there is no Lake Superior Indian in it we do not quote it. Dr. Fell entitles himself "M.D. of the University of New York," of which institution, we regret to say, we are informed that he is a graduate. For some time he had an office here, but was better known as a small politician than as a practitioner. It looks astonishingly as if he must be a branch concern of Gilbert & Co., the "Cancer Doctor," who occasionally figures in Broadway. New York may well blush for Dr. Fell, but London will have to put on a deeper hue for the surgeons of the Middlesex hospital who have been so humbugged by him.

—In order to make the topic of anæsthetics, on which we largely touch in this number, more complete, we extract from the proceedings of the Pathological Society, at the meeting on the 10th of June, the following discussion upon Amylene, the agent which is now coming into use in England :

Dr. Dalton called the attention of the Society to a specimen of amylene. He noticed a week or two since a report of Robant upon this subject, who has been using it for an anæsthetic, and is so favorably impressed with it that he recommends it in place of chloroform, in a great many instances. According to all Robant's experience, amylene holds an intermediate place between chloroform and ether, having a somewhat disagreeable odor, and in the majority of cases patients readily come under its influence, and as readily recover, while its secondary effects are very slight. Robant was induced to recommend it because he thought it possessed the advantage over ether of being more compact, and producing anæsthesia with a small quantity and very rapidly.

He has used it in 92 or 93 cases with no fatal result. Dr. Dalton tried very much to obtain, together with this, some French and English specimens, but was not able to do so. This was obtained from Hegeman & Clark, and was manufactured in Philadelphia. He inhaled it himself, but found it impossible to produce anæsthesia. The odor of this specimen is not very disagreeable at first, in fact rather pleasant, but taken for some time it was excessively repulsive, and gave rise to irritation of the larynx and trachea. It also produced slight nausea. He had heard of its being tried in some three cases without any effect. Possibly this might not be a good article, for it does not correspond to the description given by Robant. According to that writer, it has a very strong odor of naphtha. This has not, though it resembles it. It smells a good deal like spearmint. Robant say it is exceedingly volatile, so much so, that the

use of an inhaler is requisite, and he attributes the failure in its use to the neglect of this precaution. This specimen does not evaporate nearly so readily as ether, and not even so rapidly as chloroform. Since reading Robant's report Dr. Dalton noticed the first fatal case, occurring in the practice of Mr. Fergusson, last April. It has been given in 144 cases. In that instance it was administered by Mr. Snow himself. Dr. Dalton took half a drachm of this without any effect, while 20 drops of chloroform puts him to sleep in less than a minute.

Dr. Griscom stated that amylene was tried in the New York Hospital in a surgical case. The patient inhaled it for full fifteen minutes, but no effect was produced. That specimen had the odor of olefiant gas.

Dr. E. R. Squibb, U. S. N., said that the reason why the gentlemen have failed to obtain anæsthesia in these instances, is probably to be found in the circumstance that the substance is not amylene at all.

Amylene is commonly made by the reaction of chloride of zinc upon amylic alcohol; and amylic alcohol is obtained by the rectification of the crude fusel oil residue, or refuse of alcohol distilleries. It happens, however, from the peculiarities of the alcohol process here, that the crude fusel oil residue contains very little true fusel oil or amylic alcohol. He has repeatedly tried in vain to obtain true fusel oil or amylic alcohol from this residue, by the ordinary means of fractional distillation, and therefore believes that through the use of steam, and from other circumstances, the crude fusel oil of our alcohol makers, is very different from that obtained from the European distilleries. If this residue, as met with here, ever contains much true fusel oil or amylic alcohol, it is probably to be found in that portion which comes over from the stills at the very last of the charge, when the temperature is highest and nearest to the boiling point of the oil.

He has also twice tried to make amylene from the carefully rectified product of this residue, and each time obtained a substance, whose physical properties were similar to Dr. Dalton's specimen, and which was never supposed to be amylene, because the fusel oil from which it was made was not true amylic alcohol, and because its properties and reactions were very different from those given as belonging to amylene. From these facts, he has no hesitation in saying that the substance is not amylene at all.

It may be well to say that the alcohol manufacturers from whom the so called crude fusel oil was obtained for these experiments, stated that their entire residue, amounting to about a barrel a day,

was supplied upon contract to parties who were understood to be agents in this purchase for Messrs. Powers & Weightman, of Philadelphia, from whose establishment this specimen of so called amylene was obtained.

— The Academy of Medicine of Paris have been discussing the claims of Amylene, as an anæsthetic. Some of the most distinguished surgeons of the French capital had given it a fair trial, and agreed in pronouncing it inferior to chloroform.

— M. Vidal has lately prescribed (says the *Bulletin de Therapuetique*) in an obstinate case of herpes præputialis, a lotion composed of 40 parts (by weight) of glycerine to one of tannin, to be applied morning and evening. The herpes disappeared in ten days, and three months afterward had not reäppeared. The case had previously been under treatment for six months without any benefit.

— A new Medical journal is announced as to be published in Constantinople, under the title of "The Medical Gazette of the East." It is issued under the authority of the Imperial Society of that city, and will be issued monthly. It is published in the French language. It is a notable characteristic of that nation, that where they send their armies they also send scientific men who are never forgetful of their profession.

— Mr. A. Chevalier published in a late number of the *Journal de Chimie Medicale*, a singular case of poisoning. A lady bought, at one of the large stores of Paris, some gauze, of an apple-green color, for a ball dress. It was sent to Madame C., to be made up. Five of her working-women, who were employed about the dress, were more or less seriouslyaffected. The gauze was sent to a chemist, M. Payen, for examination, and he reported that it was, in the first place, colored by Schwenfurth's green ; and that, in the second place, this green adhered so slightly to the stuff, that the coloring matter was very easily separated from it. Schwenfurth's green is an arsenite of copper, and of course an active poison. The *Revue de Therapeutique* states that steps have been taken to keep these goods out of the market.

— The corner-stone of "the Nursery and Child's Hospital," in this city, was laid with appropriate ceremonies on the 22d of June. The building is to be in 51st Street, between Lexington and Third Avenues. An interesting address was delivered on the occasion by Hon. Erastus Brooks, to whom the Institution is under great obligations, for the energy, wisdom, and success with which he seconded in the Senate their application for aid from the State. In fact it is doubt-

ful if it could have been carried without him. We have space for a few hard facts only, drawn from the address, and must omit much that is as interesting. Would it not be wise in the authorities of the institution to publish the address in a pamphlet form, for general distribution? There could scarcely be found a document better adapted to interest men as well as women in their undertaking. It is to be regretted that Mr. Brooks was not aware of the existence of a hospital for children at Manchester, England, that he might have given proper credit to it. Its first report, issued last year, shows great success, and will be referred to again. If we are not mistaken, a similar institution was attempted some years since in Boston, but failed chiefly because mothers were not admitted with the children, and would not give up the care of their children entirely to strangers. That was, however, a private charity.

But these are our Gradgrind extracts: "If more substantial evidence is needed of the approval of the State Government in the wisdom and benevolence of your labors, it is found in the gift, from an overstrained treasury, of ten thousand dollars, to enable you to erect a suitable edifice for receiving Infants and Young Children entrusted to your charge, and to enable you to provide such accommodations as will secure their health and comfort. In receiving this money towards the erection of a building, the cost of which will be almost three times the amount of the State appropriation, with every part and parcel of the edifice paired down to the lowest level of prudent economy, you practically pledged yourselves to the State, to complete this building, and to devote it to the objects set forth in your by-laws and constitution.

In the same confidence in the general necessity and benevolence of the Institution, the City Government granted, in the very heart of the city, the use of six lots of land,—one hundred and forty feet by one hundred,—on which this building is to rest, and where the corner-stone is now laid, the grant being unlimited, if the Institution shall endure, as God grant it may,—increasing in usefulness and honor to the end of time.

The managers have contracted to complete a substantial, convenient building 123 feet by 70, with two wings, one expressly reserved for the hospital, and a centre building seventy feet square, at a cost not exceeding $25,000.

Of 553 persons received some time since, 204 were women, and 327 were children; 169 were born in America of Irish parents, and 249 were Irish, 43 English, 14 German, 11 French, 7 Scotch, and but 36 American. Of 160 children received in the Hospital, 146 were in a diseased state from pure neglect, such as burns, bruises, or falls, and from being drugged until restoration had become almost hopeless. There were among these little ones two cases of disease from the killing frosts of Winter, and most of them entered the Child's Hos-

pital upon the brink of the grave, and, as it were, invited to a consoling death.

Of these all but forty were restored as from death to life. In the three years in which the Nursery has been established, relief has been extended to 840 children, and to 451 women—making in all not less than 1291 recipients of this noble charity."

— The following account of the peculiar physical anomalies found at the autopsy of a man who lately died at the Bellevue Hospital of consumption, was furnished to the *Evening Post*, by Dr. J. G. Johnson, Surgeon to the Hospital. The man, James Graham, a native of Scotland, was well known in our city, where he used to move himself about in a little four wheeled carriage, being unable to to walk from his peculiar conformation :—

"On the left hand the man had the thumb naturally developed, but only one finger, and never had had any more This finger was enormously developed, and was four and a half inches in length. On the right hand there were two fingers—which, by the muscles attached to them, were found to be the little and the index finger. The patient never had any more. The index finger, which should have been the largest, was only rudimentary, while the little finger was about three times the size of the index finger of a laboring man, and was of the enormous length of five inches. In prehension, the thumb, and this *little* finger were employed, the index finger being only an assistant to the other ; it had only two joints, instead of three, as is usually the case ; was quite short, and curved away from the thumb. so as to fill and form a circle with the little finger and thumb, when the hand was closed in grasping an object.

"The legs were still more peculiar. He had never been able to walk, and had sat cross-legged, as a tailor does when at work, and as a result the right thigh and the leg had become anchylosed; there was no knee joint and no motion at the knee. The foot was a club-foot, and had only three toes instead of five, and these toes were webbed like a duck's foot. There was only one bone in the leg ; the fibula was wanting ; and there was only one bone in the foot, and that the os calcis. The other of the seven bones of the foot were wanting.

"In the left leg there was also only one bone, the fibula wanting. There was motion in the knee-joint, but here there were two patellæ instead of one. In the foot, which was also club-footed, there were only three toes, which were webbed, and there was only a single bone, the os calcis, to which the toes united directly, the other of the seven bones of the foot were wanting.

"The man had a very long, narrow chest. The legs were very feeble, the muscles hardly developed at all, while the fore-arm was

very powerfully developed. The man had moved from place to place in one of those small carriages which he could propel by a crank on either side. He was a watch-maker by trade, or rather the maker of dial faces for clocks and watches, and making business generally of jewelry, and in the business manifested considerable ingenuity, and had always been able to secure a situation, as long as he had been able to work, which was till within a year of his death. When too feeble to sit at his bench, or to move his carriage, he had sustained himself by crawling on his hands and knees along the streets and begging. A few days prior to his admission to the Hospital, too feeble to crawl home to his lodging-house, he had made his way late in the evening into a barber's shop in the Bowery, from whence he was taken to a lodging-house in the lower part of the city, and thence to the Hospital.

— We learn with great pleasure, that Dr. Frederick S. Ainsworth, of this city, has been invited to deliver the course of lectures upon Physiology and Pathology, at Pittsfield, and that he has accepted the post. The selection is one which cannot fail to give satisfaction both to professors and students. The high qualifications of the incumbent are well known; his unusually accurate knowledge of anatomy, together with many advantages of study abroad, and much experience at home in the practical duties of his profession, ensure the most thorough teaching to those who may attend his lectures.

In addition, the urbanity of his manners and his cheerful temperament will render him most acceptable to all with whom he is to be associated.—*Boston Med. and Surg. Journal.*

— Dr. J. P. Bancroft, of St. Johnsbury, Vt., has been appointed superintendent of the New Hampshire Asylum for the Insane, in place of Dr. J. E. Tyler, who resigned.

— Dr. John V. Lansing, of New York, has been appointed superintendent of the King's County Lunatic Asylum, at Flatbush, in place of Dr. Baisley.

Liquor Sodæ Chlorinatæ as a Local Application in Small Pox.— I have found a weak solution of the liquor sodæ chlorinatæ so beneficial in the affection of the mouth and throat, in cases of small-pox, that its efficacy cannot be too widely known. It may have been used by others; but, if so, I have not seen any account of it. In each case in which I have employed it, the effect has been extraordinary: one washing of the mouth and gargling of the throat has restored the patient to comfort, and ability to speak or swallow without difficulty. The strength I have used has been a drachm to half a pint of water. Applied to the skin, it has had the effect of allaying the troublesome itching; and I think it not unlikely that a much stronger solution, applied in the earlier stage of the eruption, might be as efficient in preventing pitting as some other remedies which have been recommended, whilst, at the same time, it could be more easily used. —*Mr. Gabb of Bewdley, in British Medical Journal.*